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17 January 1986

Worldwide Report

# EPIDEMIOLOGY

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# WORLDWIDE REPORT

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## CARICOM HEALTH OFFICIALS MEET TO DEVISE FUTURE ACTIONS

FL022042 Bridgetown CANA in English 1800 GMT 2 Dec 85

[Text] Georgetown, 2 December--Health personnel from the Caribbean Community (Caricom) have ended discussions here on ways of providing improved levels of health care to the region's people amid calls for drastic cutbacks in services for economic reasons, the Caricom secretariat said today.

The officials, who met here last week, examined a number of wide-ranging health issues and prepared the agenda for the 10th health ministers meeting here next year.

Dr Halmond Dyer, Caribbean project coordinator of the Pan-American Health Organisation (PAHO), told the three-day meeting the crisis in regional health was an opportunity to concentrate our abilities to pursue solving problems of our health systems.

Dr Dyer supported Deputy Caricom Secretary-General Louis Wiltshire, who had called on member states to continue to support the valuable work regional institutions were doing. Such institutions included the Caribbean Environmental Health Institute (CEHI), the Caribbean Epidemiological Centre (CAREC), the Caribbean Regional Drug Testing Laboratory (CRDTL) and the Caribbean Food and Nutrition Institute (CFNI).

Highlighting the meeting were discussions on a new initiative in health--the Caribbean Cooperation in Health--which is jointly sponsored by the Caricom secretariat and PAHO.

Health officials identified six priority areas which call for support for environmental health, human resource development, maternal and child health, chronic diseases, food and nutrition and infrastructure.

Delegates agreed to rationalise the allocation of their own resources to ensure that health programmes are delivered in the most cost-effective manner, before approaching external agencies for financial support, the secretariat said.

The officials discussed in detail priority areas that included the training of health personnel, disease control, care of the aged, the health of women and their involvement in development, eye care and the operations of the Pan-Caribbean Disaster Preparedness and Prevention Project (PCDPPP).

Country delegates to the meeting were encouraged to consider the future of the jointly sponsored Caricom/USAID--sponsored proulation and development project. Delegates received a favourable report on the progress of the project, which will end in 1986.

With reference to the regional food and nutrition strategy (RFNS), delegates pledged to establish and strengthen appropriate co-ordinating committees to speed up the strategy, the secretariat said.

During a recent workshop in Barbados, representatives from both government and non-government organisations decided to establish a wider inter-sectoral committee at the regional level. That committee includes represeatatives from the ministries of health, agriculture and education. It also will include communications and information personnel who will assist in developing programmes and projects involving the people of the region, the secretariat said.

/12913
CSO: 5440/029

INTER-AMERICAN AFFAIRS

## BRIEFS

CARICOM HEALTH TRAINING--A three-man team of evaluators is visiting nine Caricom territories by mid-November to assess the achievement of the Regional Project for Education and Training of Allied Health Personnel launched ten years ago, and to help chart new directions for the future. The evaluators will also examine the feasibility of establishing within the Caricom Secretariat a Health Service, and Manpower Development/Research Unit. The project executed jointly by the Caricom Secretariat and PAHO has trained over 300 persons as pharmacists, Environmental Health Officers, radiographers, Medical Technologists, Medical Records Clerks and Diabetic Assistants. Health Service Supervisors and tutors also received training at post-basic levels at five training centers throughout the region. [Text] [Georgetown GUYANA CHRONICLE in English 29 Oct 85 p 4] /9274

CARICOM HEALTH PROJECT MANAGEMENT--Top Caricom health officials responsible for planning and implementation of projects supported by donor agencies will attend a five-day seminar on funding preparation and management of health projects in the Caribbean, beginning in Barbados November 18. The seminar will introduce to Directors of Health Services, Permanent Secretaries, project planners and managers, the particular skills and techniques associated with procurement and funding, project preparation, management and evaluation of health projects. With technical assistance from the Commonwealth Secretariat, CDB, PAHO/WHO and Caricom, participants will, on their return home, conduct similar courses at the national level for personnel in the Ministries of Planning and Finance. [Text] [Georgetown GUYANA CHRONICLE in English 29 Oct 85 p 4] /9274

CSO: 5440/022

BAHAMAS

HOSPITAL PATIENTS DYING FROM LACK OF BASIC SUPPLIES

Nassau THE TRIBUNE in English 26 Nov 85 p 1

/Article by Athena Damianos: "Patients 'Dying at PMH Due to Supply Shortages'"/

/Text/ Patients are dying at Princess Margaret Hospital because of supply shortages, Dr Bernard Nottage, chairman of the Medical Staff, said at a meeting of department heads yesterday.

Moments later, department heads voted unanimously that they are prepared to take stern measures in an attempt to bring about a positive change in medical care at the hospital.

The bottomline was that, unless there is an immediate and effective change in administration and unless the constant shortage of essential material is corrected by December 5, hospital staff would take strong action.

It was agreed that a possible measure would be a work to rule by all departments.

Under such a measure, doctors would only see emergency cases and restrict their activities to those patients who are most in need of attention.

Only one person, hospital administrator John Thompson, abstained from voting.

It is the first time doctors, nurses and administrators have banded together to try and bring about an improvement in medical care for the Bahamian public.

The hospital staff is agitating for complete autonomy, including its own budget. This would mean a divorce from the Ministry of Health.

The Medical Association of the Bahamas for many years, starting in 1967, advocated decentralisation of health services, but Government's policy has been consistently to desist delegating authority to anyone outside the Ministry.

There is presently no accountability at Princess Margaret Hospital.

Under the present system, the chief medical coordinator and principal nursing officer reports to the hospital administrator, who then reports to the "seventh floor" (Ministry of Health).

Yesterday, stories of roaches running over patients' food and daily shortages of vital drugs such as penicillin were told at the meeting, which started at noon.

A doctor said that if Nassau is in a position to boast of satellites and Commonwealth Heads of Government Conferences, there is no excuse for the constant shortage of basic supplies at the hospital.

Another doctor said he had spoken to Minister of Health Norman Gay recently and "the Minister seemed to expect us to take action some time ago" and hoped that positive steps would be taken.

A woman doctor found the remark interesting.

"Honey, he's waiting on some help from us," another doctor said.

Dr Nottage was concerned that doctors are being perceived by the public as uncaring people because they have not spoken over the horrible stories that have surfaced about the hospital.

He said that by their very inaction, doctors may be giving the impression that they don't care, when in fact they do.

The Tribune was unable to contact Dr Nottage, who was in the hospital's operating theatre. An "important" message left this morning went unanswered.

Ministry of Health permanent secretary Luther Smith has agreed to address department heads December 5, when he is expected to make a proposal.

Mr Smith was off the island today and his deputy, Veta Brown, was out of the office.

It is understood that the Ministry may offer to give Dr Linelle Haddox, medical coordinator, greater autonomy in order to defuse the situation. Dr Haddox resigned from the hospital earlier in the year out of frustration, but returned to work.

Princess Margaret "horror" stories are being reported with more frequency.

A 76-year-old diabetic told The Tribune October 8 that she was attacked and bitten by a rat "as large as a kitten" while she lay in the Princess Margaret Hospital, unable to move.

She said she woke up when she felt something tugging on the bandages of the stump to her left leg, which had been amputated a month earlier. The rat bit Mrs Smith on the middle finger of her left hand.

Ministry of Health officials remained silent on the incident, which was published on the front page of The Tribune.

Also last month, a distraught telephone caller told of seeing a large rat run out of the hospital near the kitchen. The caller said hospital workers told her that rats eat the meat.

During a September walk-out by kitchen workers to protest unsanitary conditions, stories were told about large rats. The workers said that the administration did not respond to their complaints.

For years now, there have been complaints of material shortages such as essential drugs, sterilized gloves and bandages. The hospital is staffed with political appointees who are not necessarily qualified for the positions they hold, The Tribune was told.

The Tribune confirmed in July that the hospital was disposing diseased human parts at the public dump because the incinerator had been out of commission for some time. Poor people can be seen scavanging at the dump for food almost daily. Again, health officials remained quiet on the matter.

"This (rat attacks) has happened several times," a hospital source said. "A rat once bit a baby on the face years ago. It's common knowledge. They look at rats all night long in the kitchen."

In April, the Ministry of Health increased its fees, in some areas by as much as 1,000 percent. But, there has been no corresponding improvement in medical services.

Government has allocated $65.6 million to the Ministry of Health for 1986, a 15 percent increase over last year's figure of $57.02 million.

At yesterday's meeting, a doctor made an impassioned plea to his colleagues to take industrial action. He said that professionals in other countries take industrial action as a means of bringing about positive change.

/12851
CSO: 5440/027

BAHAMAS

## BRIEFS

AIDS SITUATION--Fifty cases of AIDS - Acquired Immune Deficiency Syndrome - have been identified in the Bahamas. Thirty-one of those have been analysed in detail and of that number, 21 are of Haitian extraction - nine of them children - and nine are Bahamians. Eight are women. Addressing the regular weekly meeting of the Rotary Club of East Nassau today, Dr Perry Gomez, Chief of Infectious Diseases at the Princess Margaret Hospital, revealed the statistics on the number of known cases of AIDS in the Bahamas. Several cases, he said have also been identified in Grand Bahama, in Eleuthera, in Abaco and one in Exuma. Since screening at the blood bank from August 28th until the end of October, he said of 877 pints received from blood donors only five were positive among otherwise healthy donors, all Bahamians. This he said gives an index of the spread of the virus in the community and this indicates that it is low. Blood he said is only accepted from Bahamians. AIDS he said has taxed the isolation facilities at the Princess Margaret Hospital to the extreme and the hospital is in the process of completing the remodeling of one of its wards to increase isolation facilities. The hospital is also developing an Out-Patient Clinic, to be open hopefully on January 1st, where AIDS patients can come for counseling and other advice. [By Juliette Storr] [Excerpt] [Nassau THE TRIBUNE in English 22 Nov 85 pp 1, 5] /12851

CSO: 5440/027

BAHRAIN

## BRIEFS

DROP IN TYPHOID CASES--Typhoid cases in Bahrain during the past ten months have fallen by a third compared to last year. So far this year only 55 cases have been reported, against 157 in 1984. Director of public health, Dr. Abou Zaid, attributed the improvement to upgrading of sanitation and the intensive vaccination programme started last year. The total number of cases reported in 1983 was 58. Dr Zaid said a health education campaign by the authorities has also paid off in improving hygiene standards. Last year's typhoid outbreak was blamed on overflowing cesspits which were contaminating water supplies. "The drainage system in Bahrain has been improved a lot over the last year," Dr Zaid said. The massive vaccination programme was also one of the reasons for a drop in typhoid cases, he said. [Text] [Manama GULF DAILY NEWS in English 19 Nov 85 p 1] /9274

CSO: 5400/4504

PAPERS REPORT, COMMENT ON SPREAD OF AIDS

## No 'Real' Danger in Bangladesh

Dhaka THE BANGLADESH OBSERVER in English 27 Oct 85 pp 1, 8

[Text]

AIDS (Acquired Immune Deficiency Syndrome) is not a real danger' in Bangladesh reports BSS.

This was observed at a meeting held recently in the Ministry of Health and Population Control with Health Secretary A.B.M Ghulam Mostafa in the chair. The meeting was attended by Prof. Nurul Islam, Director, Institute of Post Graduate Medicine and Research emin ent physicians and officials of the Ministry, according to an official handout on Saturday.

However in view of the disease taking a serious turn in Europe and the United States, the meeting decided to prepare an action programme for its prevention in the country.

As per Government instruction, the meeting constituted a 10-member committee headed by Prof Nurul Islam

The committee will examine the extent and evolving of the disease in Bangladesh and suggest preventive measures including ways and means for its detection, prevention and eradication.

It will also suggest what facilities should be made available for the investigation of virus of the disease or any other aspect regarding the control of the disease.

The meeting observed that propagation of Islamic ideas among the people on the evils of sex promiscuity could help combat AIDS.

AIDS is spread primarily through sexual contact, besides exposure to infected blood or blood products, exposure of open skin diseases of mucous membranes to infected persons' blood. Other body fluids are also responsible for the spread of AIDS

## Reporting Termed 'Incomplete'

Dhaka THE NEW NATION in English 28 Oct 85 p 5

[Editorial]

[Text]

It is reassuring to know that AIDS does not pose a serious threat to Bangladesh. It is also gratifying that it has been decided to prepare an action programme for prevention of AIDS in the country. A ten-member committee headed by Professor Nurul Islam,

Director, Institute of Post Graduate Medicine and Research, has been constituted.

Happily, till now no case of AIDS has been reported within the country, although one or two cases have been reported in India and Pakistan. But reporting itself is incomplete in this country. In the western countries because of universal medical coverage and systemetic collection and computerisation of data a complete and up-to-date information is available. In the U.S. for example, medical experts say that so far 14,000 persons have been afflicted and more than 6,000 have died and there is no reason to question the figures. But in Bangladesh it is as likely as not that the first case of AIDS will go unreported.

The health authorities have done well to allay public fears of this dreaded scourge which is spreading fast in the western countries. But it is hoped that the most likely sources of infection will be brought under closer surveillance, for example, blood donation centres. A peculiarity of AIDS is that one can be a carrier without being a patient and without demonstrating any clinical sign. The well meaning donor may not even know that his noble gesture will spell the doom of the poor recipient. Therefore the inexpensive blood test evolved abroad for screening out infected blood should be adopted in the blood banks.

We can take a pride in being able to say that the country has no gay club, the main source of AIDS infection, or any significant gay population. But then, more people move about here with open sores and abrasions. Sterilisation of injection needle and syringe in the health centres is perfunctory.

Taking all this into account, the measures to prevent the entry and spread of AIDS has to be thorough.

## Check on Foreigners Urged

Dhaka THE BANGLADESH OBSERVER in English 13 Nov 85 p 5

[Editorial]

[Text]

AIDS is the most dreadful disease sweeping over the West. And according to an AFP report Nov. 11, a patient, who was treated with drug said to have yielded 'spectacular' results against the killer virus, died in a Paris hospital. The tragedy becomes more painful in view of the publicity given through the media of the unique success of the French experiment making a breakthrough against the virus.

As a matter of fact, AIDS is caused by retro-virus which destroys the immune system and the central nervous system of an individual. And no effective treatment for this killer disease has been found so far. Since the virus can undergo changes periodically, the development of a particular vaccine may not prove effective. New types of vaccine may have to be developed with each viral change. This is the view of Dr. Pearl Ma, an American microbiologist who has done extensive research on the subject. Reportedly, research is being carried on vigorously now in the National Institute of Health, New York, and hopefully some efficacious drug will be produced.

According to experts working in the field, the treatment of AIDS is difficult, because of a possible drug-brain barrier. Such a barrier prevents the drug from being carried into the brain. AIDS is generally transmitted due to intimate homosexual contacts, multiple transmission of blood and blood products and the passage of the virus from mother to child before or shortly after birth and also intravenous drug uses.

Though AIDS cases have not been reported in the subcontinental region, particularly due to socio-religious taboos on homosexual acts, we cannot be sure that the disease could not have already found its way into the country through tourists. Apart from the inhibition of people to come forward, cases may not be reported because most physicians are not aware of ways of identifying the disease.

Therefore, there is need for strict vigilance, particularly at the entry points. Even foreigner's health certificate should be checked thoroughly and no donation of blood may be accepted for the blood banks unless samples are thoroughly screened and found to be safe.

/9274
CSO: 5450/0070

## BRIEFS

DIARRHEA IN RAJBARI--Rajbari, 23 Oct (BSS)--Diarrhoea, which has broken out in Mizanpur union under Rajbari Sadar upazila recently, claimed at least five lives and attacked over 100 persons. The Chairman of Mizanpur Union Parishad confirmed that the diarrhoea had claimed the lives of Monowcra, 10, Mounuddin 1, Khsebian Bibi 45, Arman 2, and Taser Sarder 75, of the union. The Civil Surgeon said sufficient measures are being taken to combat the disease. [Text] [Dhaka THE NEW NATION in English 27 Oct 85 p 2] /9274

EYE DISEASE OUTBREAKS--Jamalpur, 25 Oct--Ophthalmia has broken out in seven upazilas of the district in an epidemic form for last few days. According to the district general hospital source, 65 percent of the outdoor patients coming to the hospital are affected by the conjunctivities viral infection. Children and adults are equally affected by this disease. According to the source, people who live in the slum and industrial areas fall easy victim of this disease. If one is attacked all the members of the family are also affected. Our Bagerhat Correspondent adds: Opstbalmia has broken out in different place of Bagerhat district in an epidemic form for sometime past. It is learnt that both the children and adults are affected by this disease. [Text] [Dhaka THE NEW NATION in English 27 Oct 85 p 2] /9274

DEATH FROM TETANUS--The death toll in Jagannath Hall roof collapse on October 15 night rose to 37 yesterday with death of Gobinda Chandra Biswas, injured in the incident. Gobinda Chandra Biswas (22), a part-time employee of Jagannath Hall sustained injuries on that night and was admitted to Dhaka Medical College hospital where he underwent treatment for two days and was later released. After release he went to his village home Shanbanda of Manikgonj district and came back to hall a few days later in a serious condition. He was then sent for medical check-up at hospital and was founded attacked by tetanus. On October 25 he was admitted to Infectious Disease Hospital at Mohakhali where he died in the early hours of yesterday. His body was sent to his village home yesterday by a university pick-up. His father, Suresh Biswas, is also an employee of Jagannath Hall. [Text] [Dhaka THE NEW NATION in English 29 Oct 85 p 1]

MADARIPUR DIARRHEA OUTBREAK--Madaripur, Nov 2--Report of diarrhoeal disease has been forthcoming in an alarming proportion here. The news of the fatal diseases like Typhoid Dysentery Virus Jaundice and the like have also been

causing hazardous concern for town-dwellers and the people of the suburban and rural areas. Very meagre deterrant measures and scarcity of the essential and life saving drugs have reposed a great threat to the myrial inhabitants in Madaripur. The artificial scarcity and soring prices of the medicine have conspicuously been created by the sellers who are eating into the very vitals of the general health and hygenic conditions of the people. The wholesale by the adulteration of the food-stuff by the dealers and owners of hotels and restaurants and the stringent pecuniary condition of the majority of the people have resulted in the out-break of such diseases as stated above and the health hazards here. [Text] [Dhaka THE BANGLADESH OBSERVER in English 2 Nov 85 p 7] /9274

CONJUNCTIVITIS IN BANDARBAN--Bandarban, 3 Nov--An attack of "viral conjunctivitis", an eye disease has broken out in an epidemic form in different parts of Bandarban district. The synptoms the infectious disease are severe pain in the eyes, eye-sore with swelling and itching and reddish colour and at lasts three to four days. People of all ages including the children have been affected by this disease. On an average 20 persons attacked by viral connunctivitis are coming to the Bandarban sadar hospital and other clinics daily for treatment. [Text] [Dhaka THE BANGLADESH OBSERVER in Englisn 4 Nov 85 p 7] /9274

DIARRHEA IN KAUKHALI--Pirojpur, 12 Nov--Four persons died of diarrhoea in Kaukhali Upazila of this district last week. It was learned that 10 more persons were affected by the disease in the upazila. The affected villages were Saina, Raghunathpur and Siakati. [Text] [Dhaka THE BANGLADESH TIMES in English 13 Nov 85 p 2] /9274

CSO: 5450/0076

BERMUDA

# GOVERNMENT STATISTICS INDICATE INCREASE IN CASES OF AIDS

Hamilton THE ROYAL GAZETTE in English 9 Oct 85 p 1

[Text]

AIDS is on the increase. Two more deaths have been attributed to the disease since the last official information on AIDS in Bermuda was released two months ago.

And there has been an upsurge in the number of reported cases of Acquired Immune Deficiency Syndrome -- two months ago there were 17 cases and now there are 24 cases.

Nearly all those who are reported to have AIDS die.

Dr. John Cann, the Island's Chief Medical Officer, released the new statistics yesterday but adamantly refused to talk to the Press about the statistics.

The statistics come from the Surveillance Unit in the Department of Health and Social Services which notes that 95 percent of AIDS victims are black and 83 percent are intravenous drug abusers.

However, there was no mention of AIDS-stricken homosexuals in the release. Homosexuals are known to be in the high risk catagory. Dr. Cann has said that there are cases involving male homosexuals in Bermuda.

The statistics show that all those who contact AIDS are in the 20 to 49 year old age group and that 41.6 percent are in the 20 to 29 year old age group, while the same percentage applies to the 30 to 39 year old age group. In the 40 to 49 year old age group the percentage is 16.6.

Males account for 79 percent of the cases.

/8309
CSO: 5440/23

## BRIEFS

MALARIA WIPED OUT--Bandar Seri Begawan, 3 Nov (ANTARA/Bernama)--Malaria has been wiped out in Brunei, with the last case reported in 1969, according to the Brunei-based weekly BORNEO BULLETIN. It quoted a spokesman of the public health section as saying that it had eradicated the mosquitoes which carried the disease. She said Brunei achieved this with the help of the World Health Organization (WHO) through an expensive programme which included widespread spraying. The Brunei Government had applied to the WHO for certification that the disease had been wiped out, the report said. [Text] [Jakarta ANTARA NEWS BULLETIN in English 4 Nov 85 p B4] /9274

CSO: 5400/4329

CANADA

AIDS INCIDENCE, PREVENTIVE MEASURES REPORTED

Red Cross Blood Testing

Toronto THE GLOBE AND MAIL in English 4 Nov 85 p A21

[Text]

The Canadian Red Cross begins a national blood screening program today to ensure that every unit of blood donated and delivered to hospitals has been tested for the AIDS virus.

"This is another tool to ensure that the blood supply is safer than ever," Elizabeth Guilbaud-Miller, a Red Cross spokesman, said.

She noted there have been four cases in Canada of people contracting acquired immune deficiency syndrome through blood transfusions.

The new test, called ELISA, will show within 24 hours whether a unit of blood might contain antibodies to the AIDS virus. Such antibodies warn that the blood donor has been exposed to the virus at some point.

A positive result will ensure that the blood will not be used, though in about 80 per cent of such cases the results will be a "false positive," Ms Guilbaud-Miller said.

"It doesn't mean that if a person has the antibodies, that person has AIDS or will ever develop AIDS. . . . But we don't want to take any chances."

The Red Cross will perform a confirmatory test, known as the Western Blot, on blood that produces a positive result under repeated ELISA testing.

"This is a much more sensitive and expensive test and says without a doubt that the person has been exposed to the virus," Ms Guilbaud-Miller said.

If the results of the Western Blot testing prove positive, the Red Cross will tell the donor the blood cannot be used for transfusion and ask for the name of his or her physician. The Red Cross will get in touch with the doctor, who will personally explain the significance of the test to the patient.

"A very small percentage of those with positive results on the Western Blot will develop AIDS," Ms Guilbaud-Miller said, noting the Red Cross also tests blood for hepatitis and syphilis.

## Latest Reportable Disease

Toronto THE TORONTO STAR in English 25 Oct 85 p A18

[Article by Chris Welner]

[Text]

Acquired immune deficiency syndrome is the latest of 63 reportable diseases and illnesses now on the books in Ontario. Others include measles, chicken pox, hepatitis and syphilis.

What that means is doctors or other health personnel must tell local medical officers of health when they discover a patient has one of the diseases.

Names, addresses and data on any high-risk group to which the patient belongs are kept in paper files — not computer records — under lock and key. Access is strictly controlled.

The information is used to ensure patients get proper medical care and counselling and, in the case of someone with AIDS, sexual partners may also be told.

If a disease could have an effect on people in the patient's environment, public health officers could inform them. But this is never done with AIDS patients since the disease can only be transmitted through intimate contact.

Records chart trends in each illness to see if it is recurring, in decline or being held in control.

The Red Cross will institute its own screening procedure for LAV/ HTLV-III, the virus that has been linked to AIDS, in its blood donors. Mandatory testing for AIDS will begin Nov. 1.

This is what the Red Cross will do.

Within 24 hours of receipt, each blood donation will be subjected to screening for AIDS.

If results are negative the blood can be used for transfusion or in making other blood products.

If the results are positive, second and third screening tests will be performed. If both are negative, the blood will be used.

If either is positive, a fourth test will be done at Ottawa's Laboratory Centre for Disease Control or the province's Central Laboratory in Etobicoke over three to four weeks to confirm the presence of AIDS.

If the final test is positive, the blood is destroyed and the case reported to the ministry.

## Tainted Blood Units

Toronto THE TORONTO STAR in English 30 Oct 85 p A7

[Text]

OTTAWA (CP-Special) — The Red Cross has come under fire for not identifying the hospital that received a pint of AIDS-tainted blood.

The Red Cross was informed last Tuesday by Kingston General Hospital that the AIDS-tainted blood had been used there in April, 1983.

The blood was given to an elderly patient who died three weeks after being transferred to the hospital primarily for kidney dialysis. The kidney failure was a major complication of extensive burns.

Dr. Alan Giles, director of the blood bank at the Kingston hospital, said he was shocked at the way the Red Cross had handled the announcement of where the blood went.

Giles was upset with the announcment saying the last pint of three AIDS-tainted blood units donated by one donor in Ottawa had been traced to an eastern Ontario Hospital.

## Implicated hospitals

"We were led to believe the Red Cross wished to take time before making a press announcement. Our situation was quite straightforward (with the patient dying) and we would have been happy to make a full announcement immediately."

By implicating all 29 hospitals in eastern Ontario, the Red Cross had made an "already anxious situation" worse.

The blood scare surfaced this month when Red Cross officials began combing through records at 29 area hospitals after it was discovered than an Ottawa businessman had contracted the disease from one of 15 pints of blood he received during open-heart surgery in 1982 at Ottawa Civic Hospital.

He now is dying of AIDS, acquired immune deficiency syndrome.

The tainted blood came from an Ottawa AIDS carrier who is known to have donated a pint of blood in March 1982, March 1983 and July 1984.

The second pint had already been traced.

Dr. Gail Rock, medical director of Ottawa Red Cross, defended the Red Cross' position, saying the media had been informed last week there was no need for concern about the third unit of tainted blood.

Meanwhile, a Correctional Services Canada spokesman said yesterday that a Joyceville Minimum Security Institution inmate was exposed to AIDS a few weeks ago.

A 25-year-old inmate has been found to have been exposed to AIDS, spokesman Dennis Curtis said. However, he has an AIDS antibody in his system, which means he has about a 90 per cent chance of being immune and only a 5 to 20 per cent chance of contracting the disease itself, said Curtis.

It is the first potential AIDS case in an Ontario prison, and only the second in correctional facilities throughout Canada, said Curtis.

## Reporting of Positive Tests

Toronto THE TORONTO STAR in English 17 Oct 85 p A21

[Text]

The Red Cross will report names of donors whose blood shows they have AIDS, but won't report all donors whose blood tests positive to the virus.

In a statement yesterday, the society rejected a demand from the Toronto Board of Health that it supply the board with the names of all donors whose blood tests positive for antibodies to Acquired Immune Deficiency Syndrome.

Dr. Martin Davey of the Red Cross said the initial screening test, which is relatively cheap and fast, may show a positive reaction for people who have never been in contact with AIDS virus, as well as for those who are carrying the virus.

As many as four out of five positive results may fall into the "false positive" category, he said.

The society will notify the provincial health ministry of any samples in which the AIDS virus is confirmed, he said. The ministry then will notify medical officers of health across the province.

The Red Cross is to start screening new blood Nov. 1 for the antibody that indicates whether a donor has been exposed to the deadly virus

Tests on current stocks of blood should be complete by Nov. 4, Davey said, and all testing will be done in Red Cross laboratories.

Toronto's medical officer of health, Dr. Sandy Macpherson, told board members on Tuesday that the Red Cross will create "a dangerous double standard" if it detects the virus in donors but doesn't let the city's board of health know.

He said his department wants that information to ensure that donors get the medical advice or counselling they may need.

While it is estimated only 2 to 5 per cent of those with a positive reading for the AIDS virus will develop AIDS, Macpherson said, it is still crucial that the board of health be notified.

The Red Cross has been guilty of "unnecessary delays" in agreeing to implement a follow-up program through the health department because of concerns about legal requirements and confidentiality, he said.

## Ontario Policy on Reporting

Toronto THE GLOBE AND MAIL in English 2 Nov 85 p A12

[Article by Ann Silversides]

[Text]

Ontario Health Minister Murray Elston's attempt at a compromise solution has upset advocates on both sides of the debate over how much information public officials should have about AIDS testing.

"There is still a lot of turmoil about this whole program," said Richard Fralick, assistant medical officer of health for the City of Toronto.

"It is quite unfortunate . . . there is a frustration about trying to plan when the rules keep changing," he said in an interview yesterday.

Mr. Elston announced on Thursday that his ministry was recalling laboratory requisition forms for AIDS testing. The forms had required doctors to provide a patient's full name and the risk group — such as homosexual/bisexual male or intravenous drug abuser — to which he or she belonged.

The forms were for tests to be carried out at the provincial laboratory which yesterday became capable of doing HTLV-III antibody tests. Previously, Ontario doctors had sent samples for testing to Ottawa.

Mr. Elston also said doctors would be allowed to requisition HTLV-III antibody tests using some kind of code, such as initials and birthday, instead of the patient's full name.

However, if a patient shows a positive reaction to the Western Blot test, used to confirm the presence of the HTLV-III antibody, medical officers of health are entitled to the patient's full name, Robert Stephens, Mr. Elston's press assistant, said yesterday.

(Current information indicates that only about 5 per cent of those with a positive reaction to the Western Blot test go on to develop AIDS.)

"This may put more onus on the medical officers of health, it may mean they have to do more work tracking down the names . . . but we had to strike a balance between protecting the public and confidentiality," Mr. Stephens said.

This balance, however, has not pleased Dr. Fralick and his colleagues, who feel public health officials must have ready access to the names and risk groups of those with a positive reaction to the confirmatory test. Nor has it satisfied those who feel public officials should not have the full names.

In the latter camp is Dr. Randy Coates, an assistant professor of preventive medicine at the University of Toronto who is working on an AIDs research project.

Dr. Coates said in an interview yesterday he will resist even a legal requirement to provide the full name of patients with positive reactions to the Western Blot test because such information is neither necessary nor useful.

Physicians, who should do the test only in a few circumstances such as when a patient has some clinical symptoms of acquired immune deficiency syndrome or ARC (AIDS-related complex), can do whatever follow-up counselling is necessary, he said.

He also argues, however, that as long as personal identification information is not available, it is extremely important to have ready access to information linking positive Western Blot tests to particular risk groups.

"We need that to expedite a more rapid assessment of what is happening. I spend a lot of my time trying to quell the hysteria out there and we've got to have the evidence quickly.

"The minister is introducing an incredibly cumbersome way to look at the statistics. You'll have 49 systems of tracing the information because all the medical officers of health in the province will have to contact physicians to get the risk group information," Dr. Coates said.

Dr. Fralick said he thinks concerns about confidentiality are a red herring, and that Ontario's medical officers of health have an excellent track record in dealing with other reportable diseases.

## Standards for Immigration

Toronto THE GLOBE AND MAIL in English 5 Nov 85 p A3

[Article by Stephen Strauss]

[Text]

An expert committee reporting to Health and Welfare Canada is drafting standards for immigration officials dealing with the potential of AIDS among prospective immigrants.

A first step in controlling the spread of the deadly disease by arrivals was taken last month, when AIDS officially joined the ranks of infectious illnesses whose appearance bars a person from entering the country as an immigrant.

Dr. Scott Leslie, in charge of immigration and quarantine questions for Health and Welfare, said the standards are being adopted because "I don't think we have a handle on the present situation. . . . The major difficulty is the testing for AIDS. What does the test mean?"

Dr. Leslie said techniques can diagnose the presence of an AIDS antibody in the blood, but there is no clear evidence that people having the antibody will go on to develop the illness itself. Some studies suggest that 2 to 5 per cent of people with antibodies later get acquired immune deficiency syndrome.

He likened the situation to the hepatitis B antibody, which has appeared in the blood of about 13 per cent of recent immigrants from Indochina.

While this was dramatically higher than the rate among resident Canadians, it has not clearly affected the incidence of hepatitis in the country.

Antibodies are generally formed when the body's immune system mobilizes to fight off a disease.

But in certain cases — AIDS is thought to be one — even if a person gets over the disease, it may not prevent him or her from transmitting the virus to others.

Scientists believe that AIDS is widespread in Africa, and studies in Zaire and Haiti have indicated that 4 to 8 per cent of the adult population show signs of the antibody. The Centres for Disease Control in Atlanta estimate that as many as one million Americans have the antibodies.

A proposal for an AIDS standard will reach members of the committee later this month, but Dr. Leslie said he did not feel it will include recommendations for generalized blood-testing for immigrants coming from areas where the disease is widely spread.

Part of this reluctance has to do with the questionable meaning of even positive results. With present procedures, even an antibody-free finding does not necessarily mean a person won't later come down with AIDS or carry it.

On a bureaucratic level, the long-time lags between initial tests and formal immigration could create other difficulties. Furthermore, reliance on local laboratories and on local doctors who may be "forgetful, not all that sharp and might even be bribed from time to time" further adds to the problem of large-scale testing, Dr. Leslie said.

"In an age of TV dinners, everyone expects instant solutions to problems, but at this point . . . we are just a little bit loath to start calling shots that may be premature. At the moment, we are restricting ourselves to barring people who positively had AIDS," he said. "Barring people with positive blood tests may be doing (them) an injustice."

## Federal Meeting Plan

Ottawa THE CITIZEN in English 7 Nov 85 p A14

[Article by Jane Defalco]

[Text] The federal government will soon call a meeting of Red Cross directors and provincial and regional health authorities to nail down a nation-wide policy for reporting donors with AIDS antibodies in their blood, a Red Cross official said Wednesday.

Dr. John Derrick, director of the Red Cross's AIDS project, said he has received "unofficial word" a meeting will be called as soon as possible on the contentious issue.

The Red Cross wants the gathering because of differing opinions in the health community on what role the Red Cross should play in reporting positive test results.

Until the question is settled, the Red Cross will keep results confidential, Derrick said.

Patients who test positively for AIDS antibodies after repeated screening and confirming tests will be informed their blood is unsuitable.

They will be asked to supply the Red Cross with their doctor's name so the report can be sent there for further action.

Derrick said it will then become the physician's responsibility to inform health authorities if he or she feels it's warranted.

Some health organizations, such as the Toronto Board of Health, want the Red Cross to report all positive results to provincial health authorities.

The Red Cross officially began screening blood on Nov. 1 for exposure to the HTLV-111 virus believed to cause AIDS — acquired immunodeficiency syndrome — an incurable disease which reduces the bodies resistance to some forms of pnemonia and cancer.

Derrick said the 17 blood collection centres in Canada began to screen blood a few weeks before Nov. 1 to ensure that by that deadline, all blood on hospital shelves would be AIDS-free.

He said it's still a few weeks too early to know whether any blood screened so far has the AIDS antibodies.

"Obviously we have discarded some blood, but we have no statistics yet. They are gathered on a monthly basis."

## Sperm Donor Screening

Ottawa THE CITIZEN in English 30 Oct 85 p A15

[Article by Jane Defalco]

[Text] The growing fear of contracting AIDS through artificial insemination has prompted fertility specialists in Ottawa to begin screening sperm donors for exposure to the AIDS virus.

The Civic Hospital fertility unit has stopped accepting new donors until it begins screening donor sperm for AIDS beginning Nov. 1, said hospital spokesman Ian Lithgow.

Blood from the Civic's donors will be sent to ministry of health laboratories in Weston, near Toronto, where it will be screened for presence of the HTLV-3 antibody. Presence of the

antibody indicates a person has come in contact with acquired immunodeficiency syndrome, a fatal virus that destroys the body's immune system.

Part of the reason for putting new donors on hold is because the Civic has no facility for banking sperm while waiting for the screening test to become available, Lithgow said.

Gynecologist and infertility specialist Dr. Norman Barwin said he began screening donors, most of them students, through the health ministry laboratory two weeks ago, when the test became available in Canada.

He said he hasn't received any results back yet. Meanwhile, donated sperm is being frozen and stored at his clinic until results rule out any exposure to AIDS.

Barwin said many patients at his Broadview Avenue clinic have expressed concern over the possibility of contracting AIDS through being fertilized with the sperm donated.

A few patients even delayed their insemination procedures until the screening process was in place.

Barwin said sperm donors are routinely interviewed and rejected as candidates if they have multiple sexual partners or admit to any history of homosexual relationships.

Prospective donors are then screened to make sure they don't have venereal diseases such as syphilis or gonorrhea.

## Measures for Rescue Teams

Toronto THE GLOBE AND MAIL in English 11 Nov 85 p A8

[Article by Theresa Tedesco]

[Text]

The fear of contracting AIDS and other communicable diseases is causing ambulance, police and fire departments across Canada to consider abandoning the use of mouth-to-mouth resuscitation to avoid direct contact with patients.

First-response rescue teams in several Ontario communities have already been equipped with plastic pocket masks that allow attendants to administer mouth-to-mouth resuscitation to patients requiring care before getting to hospital.

Other cities, including Toronto and Winnipeg, are studying the possibility of adopting the device, which allows oxygen to be provided without touching a patient's mouth, thus lessening the chances of contracting diseases transmitted by means of bodily fluids.

Although most officials say they have been concerned for years about the potential spread of contagious diseases, such as hepatitis, tuberculosis and common colds, they agree the concern surrounding acquired immune deficiency syndrome prompted the change.

Captain Stanley Lukow of the Oshawa fire department said he thinks the fear of contracting diseases in this way has existed for a long time, and "has been sort of a topic for a couple of years. Once the AIDS bit came out, it made them move a little faster."

There is no firm evidence that AIDS can be contracted through saliva.

The Oshawa fire department received about 12 of the plastic pocket masks two weeks ago for its 10 trucks, and plans to provide one for each of the 150 men on the force.

Although the use of the masks is voluntary, Capt. Lukow predicts most firemen will use it, because "you just don't know what people have."

John Visser, shift supervisor for the Whitby, Ont., ambulance service, said most of the area's 18 paramedics are not concerned about contracting diseases because they usually use a mask hooked to an oxygen tank for cardio-pulmonary resuscitation because the oxygen concentration is more potent.

He said the AIDS scare has been blown out of proportion, but conceded that ambulance technicians are exposed to a lot of bacteria as part of their job.

"We get involved with a lot of sicknesses before anyone knows about it," Mr. Visser said in a telephone interview. "How do we know?

It's our job and we don't question you first . . . We're just there to do our job."

Joe Cowal, a duty officer for the Winnipeg ambulance service, said city administrators are thinking of providing pocket masks to ambulance and first-response rescue teams in the fire department "in order to prevent transmission of germs and bacteria."

Winnipeg police are studying the device because of "the growing concern about different diseases being passed around," according to a police inspector who asked not to be identified. He said the department is looking for something "that will guarantee bodily fluids will not be passed around."

As more cases of AIDS are reported in Canada — 369 cases have been reported, of which 168 have resulted in death — health officials fear that medical personnel will be reluctant to give mouth-to-mouth resuscitation in emergencies.

AIDS renders the body's immune system powerless to fight infections and is transmitted primarily through sexual contact when contaminated semen enters the bloodstream. It may take two to six years to manifest itself and it is almost always fatal.

Ontario Chief Coroner Ross Bennett said there is so much concern about AIDS that mouth-to-mouth resuscitation might not be administered without a protective barrier.

"There is a certain fear there and we want to ensure that CPR will be administered," he said.

A study requested by the Ontario Police Commission is being conducted by the coroner's office to review the pocket mask as a tool to alleviate some of the fears among emergency personnel.

"The barrier removes a potential hazard, although there is no evidence that AIDS can be contracted through saliva," Dr. Bennett said, adding that approval of the mask would be an attempt to allay growing concern about AIDS in the medical services community.

Toronto's fire department encourages its 1,300 employees to use the mask and oxygen tank ventilators as much as possible. A spokesman said the department's 52 trucks have carried a device similar to the pocket mask for more than a decade but it has not been used extensively in the past.

Metro Toronto's department of ambulance services is reviewing pocket masks, but it "has no intention of issuing them at this time," said George Stuttaford, the duty officer.

The department instructs trainees with the mouth-to-mouth method, but it has always endorsed the use of the bag/mask ventilator — a plastic bag attached to a mouthpiece that is squeezed to manually pump air into a patient.

Other Canadian cities have also chosen to instruct their health services employees to use emergency methods that do not involve direct contact with patients.

## Contaminated Tattoo Needle

Toronto THE GLOBE AND MAIL in English 29 Oct 85 p A8

[Text]

A young Canadian man is sick with an AIDS-related illness in what is believed to be the first case of exposure to the deadly virus by contaminated tattoo needles, a Montreal doctor said yesterday.

Dr. Norbert Gilmore, considered one of the country's leading AIDS specialists, said the man exhibited all the classic symptoms of an AIDS-related viral disease after he had a small tattoo drawn on his arm.

The man, in his early 20s, had swollen lymph glands, suffered from recurring fevers and was chronically tired, said Dr. Gilmore, a consultant on the case.

Dr. Gilmore said tests confirmed that the man had been exposed to the AIDS virus, but he has not developed the disease — acquired immune deficiency syndrome.

The case is so unusual that it is difficult to predict accurately what the man's chances are of getting AIDS, said Dr. Gilmore, who declined to identify the man or say where he lived.

Dr. Gilmore said the needle used for the tattoo must have been contaminated by the virus.

He said medical authorities have known since the late 1950s that such viral diseases as hepatitis have been spread through improperly handled equipment for tattooing, ear-piercing and electrolysis.

Dr. Gilmore said the case illustrates the need for action to protect the public better against such possible ways of spreading the AIDS virus.

"I don't think there's any question that we need action," he said.

The Laboratory Centre for Disease Control in Ottawa said yesterday that 369 cases of AIDS have been reported in Canada.

"You are not likely to get AIDS from ear-piercing," Dr. Alastair Clayton, director of the Ottawa centre, said, but the case of the man exposed through tattoo needles underlines the need for strict mandatory supervision of anyone who pierces or punctures other people's skin as a business.

## Ottawa Hotline

Ottawa THE CITIZEN in English 5 Nov 85 p B2

[Text]

Beginning today, people who want information on the fatal disease AIDS can call the regional health unit's hotline at 594-3344.

Rob Dolan, spokesman for the unit, said a nurse and doctor will be available from 9 a.m. to 5 p.m. Monday to Friday to take calls and answer general questions on the as-yet incurable disease.

"We feel there is a need for this," Dolan said Monday. "We can't tell how many calls we'll get until it opens, but we'll be doing regular evaluations."

The health unit hopes to dispel some of the misconceptions and fear surrounding AIDS, or acquired immunodeficiency syndrome.

The virus attacks the body's immune system, leaving it vulnerable to infections and some rare forms of cancer.

Victims can catch the virus from the semen of an AIDS carrier during sexual contact or through transfusions with blood donated by an AIDS carrier.

The virus can also be passed in large quantities of saliva but researchers say people should not fear going to the same restaurant as an AIDS victim or taking communion in church from a common cup of wine.

## British Columbia Test Results

Ottawa THE CITIZEN in English 23 Oct 85 p A11

[Text]

VANCOUVER (CP) — Initial testing of 5,165 blood donations made to the Red Cross in British Columbia since Oct. 7 indicate 20 contain antibodies to the AIDS virus, says the provincial medical director for the Red Cross.

Secondary testing will be required before it is known how many of those tested actually have the virus, Dr. Noel Buskard told a news conference Tuesday.

"AIDS testing requires confirmation by a reference lab in Ottawa," he said. "They have been sent off but we do not know the results."

Buskard said he anticipates about four of 20 donations would be confirmed as containing the virus.

All donations made to the Red Cross since Oct. 7 have been tested for the AIDs virus and "everything going out to the hospitals has now been tested."

Three people out of 309 reported cases of AIDS in Canada have been known to have contracted the disease because of blood transfusions received through the Red Cross, which collects about 1.4 million units (of 450 millilitres each) of blood across Canada each year.

All three, now dead, got the disease before the AIDS virus was isolated three years ago. The risk of getting AIDS from a transfusion of untested blood is one in 750,000 and is expected to be reduced substantially when Canada-wide testing begins next month.

/9317
CSO: 5420/38

CANADA

SCARLET FEVER FOUND AT TORONTO FAMILY SHELTER

Toronto THE TORONTO STAR in English 29 Oct 85 p A7

[Text] Seven people from a family shelter on Dundas St. W. have tested positive for scarlet fever bacteria and are being treated with antibiotics.

Dr. Richard Fralick, associate medical officer of health for the downtown area, said the cases were confirmed yesterday, although only three people definitely had the sickness.

Two adults were found to be carriers of the bacteria but did not have the disease, while two other adults and one child were suffering the strep throat effects of scarlet fever.

It hasn't been determined whether two other children that tested positive have the disease.

There were 24 people tested, most of whom were from the families of the three children first suspected of having scarlet fever.

"With penicillin we'll clear up the problem as fast as possible. We'll continue to follow this and make sure people get treatment," he said.

Fralick said the health department isolated two families at the Metro Family Residence on Dundas St. W. this weekend as regular contact could have spread the disease.

He said scarlet fever, a fatal disease in less than 1 per cent of cases in North America, is easily controlled with antibiotics. It is caused by several strains of streptococcus bacteria and symptoms include fever, vomiting, sore throat, headache and rash.

/8309
CSO: 5420/39

CANADA

STUDY SUGGESTS CANCER DANGERS FROM COMMON WORKPLACE DUSTS

Toronto THE TORONTO STAR in English 13 Nov 85 p A8

[Text] Montreal (CP)--Workers in the forest products, textile, and food processing industries are in danger of being exposed to cancer-causing agents, an intensive five-year study has revealed.

Organized by scientists at the Armand Frappier Institute's centre for research in preventive medicine, the study was based on extensive interviews with 2,170 male cancer victims between 35 and 70.

Initial data indicates cancer may be caused by constant and lengthy exposure to such common substances as wood dust and liquid bleach. It also revealed a higher risk of intestinal and prostate cancer after continued exposure to grain dust.

Its preliminary conclusion links extended exposure to the organic dusts of food, paper, fabrics, wool, synthetic fibres, cotton, fur, grain and flour to cases of cancer of the lung, stomach, intestine, bladder and prostate.

Until now, said project originator Dr. Jack Siemiatycki, "cancer-causing agents have been found virtually by chance," usually by doctors who drew links to certain cancer-causing agents by noting the recurrence of the disease among people working in the same place.

/8309
CSO: 5420/39

JPRS-TEP-86-001
17 January 1986

CANADA

# ONTARIO PLANS REVIEW OF NURSING CARE FOR ELDERLY

Toronto THE TORONTO STAR in English 5 Nov 85 p A11

[Article by Paul Bilodeau]

[Text]

Ontario plans an in-depth review of the role of nursing homes and homes for the aged, Health Minister Murray Elston says.

The government favors reforms aimed at decreasing the number of the elderly living in institutions, Elston said yesterday.

It also favors stronger preventive measures and "health maintenance" for the growing population of people over 65, he told a Toronto convention of the Ontario Dietetic Association.

## Reform urged

In a current Star series on caring for the elderly, the Coalition for Nursing Home Reform called for reform of the provincial Nursing Home Act and of the entire system, to preserve the dignity and safety of nursing home residents.

Elston said the province's review would determine what's wrong with the system that cares for the elderly, then recommend ways to improve it.

A "balance" must be struck between services offered by profit and non-profit homes, he said, but the key evaluation of the Ontario study will be safe and adequate care. In Ontario, 95 per cent of nursing homes are profit-oriented, he said.

A spokesman for Elston said the minister's comments referred to a report by Ron Van Horne, minister without portfolio responsible for senior citizens, calling for the review of health care for seniors.

Van Horne said in a telephone interview from his London home that his report, requested by Premier David Peterson last summer, is under study by cabinet and he can't reveal its contents.

"Part of the report to the Premier covered those areas (nursing homes and homes for the aged)," he said.

In a separate address to the convention, U.S. consumer advocate Ralph Nader stressed the need for increased vigilance to ensure high quality care for the elderly. He called on old people to become more politically active in citizens' groups to demand quality care, because government cannot be expected to continually monitor each nursing home.

Elston did not specify who is to undertake the Ontario study, which will attempt to "reach out to people who are working" in nursing homes "to try and come up with floor-level suggestions," he said.

"Quality of care will be the single most important priority in shaping government policy on the care of the elderly."

Ten per cent of Ontario's elderly are living in institutions. Community-based homecare programs must be developed to decrease Ontario's "over-reliance on institutional care," Elston said.

But support services don't yet exist to enable families to care adequately for their elderly relatives. When they come out of hospital, frail old people often have to go back to institutions because there is no follow-up to help them recover at home, Elston said.

## Welcomed study

Dietitians working for nursing homes welcomed Elston's study, and called for further legislation to cover nursing homes as well as homes for the aged.

"The government has got to legislate in order to protect the public, and not just individuals in nursing homes," said Carolyn Suerth-Hudson of Extendicare Toronto, a private nursing home chain.

Barbara Burns, who also works for Extendicare, said she hoped the study wouldn't amount to a "butcher job" against nursing homes. She said nursing homes compare favorably with homes for the aged, which come under the supervision of the provincial government.

/8309
CSO: 5420/39

COLOMBIA

## BRIEFS

LUNG CANCER RISES SHARPLY--Lung cancer mortality is rising uncontrollably. In 1973, the National Institute of Cancer diagnosed 2,600 cases of cancer, of which 0.7 percent were due to lung cancer. In 1983, there were 3,000 cases of cancer, of which 1.8 percent were lung cancer. Thus, while the general index of cancer increased 10 percent, the one for lung cancer increased 30 percent. [Excerpt] [Bogota EL TIEMPO in Spanish 21 Oct 85 p 10-C] 12501/9435

CSO: 5400/2013

CUBA

## BRIEFS

AIDS STUDY TEAM FORMED--The Cuban Public Health Ministry has created a high-level, multidisciplined team to study the acquired immune deficiency syndrome, AIDS, even though there is no existing case of this disease in the country at the moment. This was reported by Dr. Jose (Aballester), director of the National Institute of Hematology and Immunology, in his speech. [Text] [Havana Radio Periodico del Aire in Spanish 2230 GMT 28 Nov 85] /9599

CSO: 5400/2019

FINLAND

AIDS VIRUS ISOLATED FROM CONTACT LENSES

Helsinki HELSINGIN SANOMAT in Finnish 26 Nov 85 p 8

[Article: "AIDS Virus Isolated from Contact Lenses by Finnish Researchers "]

[Text] A Finnish group of researchers is known to be the first in the world to isolate the HTLV III virus from contact lenses which had been fitted as an experiment to five AIDS patients. "This finding emphasizes the necessity of the careful cleansing of contact lens fitting sets after each customer," says Doctor Timo Tervo from the ophthalmological clinic of the Helsinki University Central Hospital.

On the other hand, the experiment indicated that the HTLV III virus would wash off easily from contact lenses. The experiment was conducted by placing one of the contact lenses worn by a patient directly into a virus test tube and the other into a saline solution.

There is no viral growth in the contact lenses which have been in the saline solution for a couple of hours, which indicates that the solution had rinsed the virus off. Tervo says that saline solution as such, however, does not do anything to the virus itself.

On the other hand, the HTLV III virus grows in the contact lenses transferred directly into the virus test tube. So far, viral growth has been observed in three contact lenses. However, the experiment, lasting for several weeks, is not yet completed; two contact lenses have not yet been isolated long enough.

According to Tervo, contact lens wearers need not be worried about this research result, since people do not normally exchange contact lenses with each other. Also, there are already instructions about cleansing the contact lens fitting sets: the contact lenses must be cleansed after each customer using either heat or hydrogen-peroxide treatment.

"The infection risk caused by gauges measuring the pressure in the eye seems minute, since the contact with the patient is very brief," says Tervo. Also here it must be noted that the virus washes off easily.

At Least Two Sources of Infection

Doctor Jukka Suni from the Aurora Hospital says that, in worldwide terms, the sources of AIDS infection can be divided into two groups. Two thirds of the

people infected have acquired it in a sexual contact. One third has been infected by dirty injection needles or blood products. This group also includes newborn infants who have acquired the infection from their mothers.

Suni says that all ten people who have AIDS in Finland have been infected as a result of sexual contact.

Of the hemophiliacs in our country, two patients have been found to have AIDS antibodies in their blood. According to Suni it is difficult to say whether these hemophiliacs have an early stage of AIDS or whether they have developed immunity to the virus.

In addition to the above-mentioned ways of infection, there are also other theoretical paths for infection. According to Suni, these include infections acquired through insects. He says that contact lenses and different instruments used in diagnostics are theoretical sources of infection unless treated properly. However, Suni emphasizes that in our latitudes, he hopes, there are clear instructions about disinfection.

Suni, who participated in the African AIDS conference in Brussels, states that in the developing countries being admitted to the hospital, for example, can be a risk, due to their poor hygiene.

12956
CSO: 5400/2514

FRANCE

SURVEY SHOWS MOST PEOPLE IGNORANT ABOUT AIDS

Paris LE QUOTIDIEN in French 8-9 Nov 85 p 22

> [Text] For two out of three Frenchmen, AIDS is a disease of homosexuals, and only 2 percent of the French people have changed their sexual habits because of the new virus, according to an IPSOS survey published yesterday in GAI PIED HEBDO.

The survey, taken on a sample of 900 adults, shows that very few French people have understood that the AIDS virus can also be transmitted during heterosexual contact (a woman, for example, could be contaminated because she injected drugs with a dirty syringe, or if she had relations with a drug addict or a bisexual carrier of AIDS, and she could in turn transmit it to her sexual partners).

The great majority of the French people, therefore, are not worried about this new disease and see no reason to change their sexual practices (multiple partners, frequentation of prostitutes or the use of contraceptives...).

The same study indicates that 60 percent of those under 35 years of age who were questioned advocate systematic medical control of homosexuals, but say they are opposed to discriminatory measures, such as closing gay bars and bathhouses, the control of gay restaurants and hairdressers or the banning of sexual relations between adults of the same sex. However, a great difference can be noted between the big cities and the rural areas or small villages. In the latter, people are much less "liberal," although the majority of reported AIDS cases and of admitted homosexuals are in the Paris area.

Avoiding Panic

A second survey, made by GAI PIED HEBDO in collaboration with the CNRS [National Center for Scientific Research] and taken on a sample of 1,000 homosexuals, reveals on the other hand that 89 percent of them are worried about AIDS. They visit homosexual bathhouses and bars less frequently, are cutting down on the number of their partners and are taking better care of their health. While the serious "dragueur" [adventurer] has less success now, the use of contraceptives has not yet become a habit. Paradoxically, it is the gays with the fewest partners who are the most concerned.

Many homosexuals fear a "moralistic or repressive reaction" or even that their homosexuality will be exposed because of the disease.

In view of the disturbing medical reports, the gays, generally well informed on the AIDS question, tend to put greater trust in the more pessimistic theory. Most believe, for example, that saliva is contaminating, a thesis which has been refuted to a certain extent in France, but defended in the United States.

As for the national press, it is sometimes accused of "holding back news to avoid a panic" and sometimes of "alarmism," and most of the homosexuals prefer to get their information from either the medical or the gay press.

8735/12859
CSO: 5400/2511

GERMAN DEMOCRATIC REPUBLIC

# AIDS NOT CLINICALLY MANIFESTED YET, BUT STEPS TAKEN

East Berlin WOCHENPOST in German Vol 32 No 40, 4 Oct 85 (signed to press 29 Sep 85) p 19

[Interview with Prof Dr Niels Soennichsen, director of the Clinic and Polyclinic for Skin Diseases at the Berlin Charite Hospital, by Sieglinde Wolff, WOCHENPOST editorial staff member, date and place not specified: "AIDS--a New Infectious Disease"]

[Text] [Question] There has been much talk recently of an infectious disease called AIDS. What's it about? Where does it come from?

[Answer] AIDS was diagnosed for the first time in 1981 in the United States. It is an infectious disease. The cause--a virus--was established simultaneously in 1984 by Montagnier in Paris and Gallo in the United States. It exclusively attacks certain cells of the immune system. This leads to the organism being able to defend itself less and less against infections. Thus, the victim is continually subject to infections--from fungal diseases to bacteria to viral infections, which the healthy immune system normally can get rid of easily. In the course of time, the AIDS victim's immune defenses are completely destroyed and, despite all medications, he succumbs to these illnesses.

Another fact that is very essential to the story. The AIDS virus creates antibodies in the affected organism, which are supposed to destroy the pathogen. Thus, where there are antibodies, the virus must also be present or have been present. This is where the tests that have now been developed come in. They can detect the antibodies in blood. Many people who have these defense cells, because they came in contact with the AIDS virus at some point, aren't sick. Usually they don't know anything about this situation. Only a limited percentage of these people are really clinically ill. How high this percentage is cannot yet be said with any certainty, since the observation periods for this are simply too short. Don't forget: The virus appeared for the first time in 1981. So far, investigations of these so-called symptomless carriers indicate that fewer than twenty percent of them have fallen sick after various periods.

[Question] But the time between infection and onset of the disease can be very long?

[Answer] Yes, there is a long incubation period. It can take several years. But shorter periods are also known. the ensuing course of the disease generally has three stages.

First, the intial stage or pre-AIDS. Uncharacteristic symptoms appear, like loss of weight, diarrhea, night sweats and uncertain fever. Such symptoms are not tied to any definite group of diseases. Of course, someone who loses weight or sweats at night doesn't necessarily have AIDS. This can have all sorts of causes. One can safely say that AIDS is, in all probability, at the bottom of the list of conceivable diagnoses.

General swelling of the lymph nodes is characteristic of the second stage. When the symptoms of both stages appear, the probability increases that AIDS is present. But also these symptoms can have other causes.

Finally, the third stage is characterized by the multiple infections already noted. If all three features apply, then the AIDS disease is manifested, as the doctors say. A small portion of the victims don't have any infections, but instead malignant skin tumors, called Kaposi's sarcom. In this case, the course of the disease is milder. And an even smaller portion have infections and skin tumors. Once again, I would like to repeat that only a certain percentage of those infected become sick, not all of them go from the first stage to the second or from the second to the third.

[Question] According to the information at hand, the AIDS diseases is concentrated in certain groups of people. is that true?

[Answer] The observations so far show clear risk groups. AIDS appears absolutely overwhelmingly in homosexual and bisexual men. Internationally, seventy-five percent of the AIDS victims are homosexual men, excluding the disease's situation in Africa. A second large risk group are drug addicts. In the United States, for example, they make up about fifteen percent of those affected, in West Europe somewhat fewer. Finally, there is a small percentage of patients who continually receive blood transfusions or have to take certain blood products for a long period. In addition, there are the partners of bisexual men. Children with AIDS have also been found already, children of mothers with AIDS. These children were born with the infection.

[Question] Viewed geographically, what route has the disease taken?

[Answer] As noted, AIDS was detected in the United States in 1981. The disease had probably already been on both American continents and in Africa. In Haiti and in some African countries, the disease has a different sexual distribution than in the United States and West Europe. There, AIDS victims with normal sexual relationships predominate. But, in the end, it's not clear where AIDS originated. The first known case does not necessarily indicate the real point of departure.

[Question] What is the reason for the concentration among homosexuals?

[Answer] First, I would like to say that not all homosexuals are affected, but only those who continually change partners. The large numbers are explained by the transmission via blood and sperm, thus the body fluids. The explanation also takes into account that there is a relatively large risk of injury with certain homosexual practices. In addition, the immune system of some homosexuals does react differently and so puts them at greater risk. But there is still no precise knowledge about this. As far as the drug addicts are concerned, it's sharing needles that can lead to AIDS just like hepatitis, for example, as well. In some countries, many homosexuals are also addicted to drugs, which naturally increase the danger.

Perhaps a few words more on the epidemological situation. AIDS victims are known in some forty countries. It is estimated that there are a total of 15,000 cases. Of this, eighty percent have appeared in the United States. There are about 1,000 AIDS victims in West Europe. In the affected countries, on the other hand, these infections are concentrated in a few regions, as a rule in the densely populated urban areas. In the United States, it's New York, Los Angeles and San Francisco. Ninety percent of the cases in France are in Paris, 73 percent of the English AIDS victims are in London. Other points of concentrations are Frankfurt/Main (FRG) and West Berlin.

[Question] How has the medical profession reacted to this disease? What advances have been made and what's the outlook?

[Answer] After the first cases were diagnosed, people quickly realized that it was a matter of an infectious disease. Three years later the cause was discovered. This demonstrates the high level of medicine's knowledge and experience in the battle against infections. We should just keep in mind, for example, that syphilis was widespread in Europe during the Middle Ages but the cause not discovered until 1905--at Berlin Charite, by the way. Discovering the cause of the disease and many of its mechanisms are prerequisites to the next steps, which will enable us to successfully combat it as well.

As yet, there have been no clinically manifested AIDS cases in the GDR and the other Socialist countries. Again, I emphasize: There are no AIDS patients in any clinical ward in our country. Of course, one cannot exclude the possibility of this disease also appearing in our country; as I've said, it's an infection. If this should happen, however, the epidemological situation would be different than in most of the countries now affected, because different social relationships prevail here. We have, for example, no drug scene. Like everywhere in the world, a certain percentage of the men are homosexually inclined. Now, of course, knowledge of the dangers that have been demonstrated elsewhere have a protective effect.

[Question] How are we armed against this infectious disease?

[Answer] The Ministry for Health took this problem on very early and ordered the appropriate measures to be taken. An advisory group to the Minister of Health was formed in 1983 to analyze the scientific and medical-political trends in the progress of AIDS throughout the world. They drew recommendations

from this for protecting against the disease and fighting it. For example, certain clinical establishments in the capital are prepared to treat AIDS victims. Consultation centers. where concerned citizens can bring their questions, were established. There, on request, they will be examined and cared for. Just like in other Socialist countries, an obligation to report the disease has been introduced.

The WHO has also followed the developments continually and published suggestions which scientists from the GDR also have worked on, to the extent our doctors have had the opportunity to become at all familiar with this problem. The Minister of Health has also issued instructions to district and regional doctors and kept them informed on the state of developments. Thus, the doctors have the necessary information at their disposal and are not unprepared. Here it is also to our benefit that we can learn from the negative experiences of other countries--an advantage that should not be underestimated. One thing I also would like to emphasize: Investigations have ruled out that AIDS is being transmitted in the medical sphere through bottled blood. Reliable provisions have been taken against this.

Of course, the individual can attend to meeting the danger himself, especially if he belongs to one of the risk groups. This is a matter of health--conscious behavior in intimate contacts.

[Question] Let us return to the medical possibilities. Is it possible yet to say what methods will prove successful in the battle against AIDS? Is a vaccination conceivable?

[Answer] First, what's already been achieved. Being able to determine the cause in such a short time was a considerable scientific achievement. The next stop was developing the test for antibodies, which requires a relatively complicated immunological technique. This is of great importance because the test forms the prerequisite to preventing transmission of the virus in donated blood. In addition, it helps, in conjunction with other examinations, to achieve diagnostic certainty when the clinical symptoms are unclear.

We also already have extensive experience concerning which medications currently are able to produce the best therapeutic effect. People are working intensively on a viro-static which will directly attack and destroy the AIDS virus. So far, this has not met with any success. You asked about a possible vaccination. Yes, this is also being prepared. One can assume that it will be possible in a few years. While we still wouldn't be able to cure any illness that has broken out, this would give medicine a prophylatic procedure which would prevent the infection.

In spite of all the problems that AIDS brings, we should not lose sight of the fact that there have been relatively few cases so far and that these have been almost exclusively in the risk groups mentioned. AIDS does not have a mass character. This is due to the mechanism by which it is transmitted. I don't want to say that this disease isn't to be taken seriously. We will have to take all possible and necessary measures. That, of course, has been done in this country in accordance with the current state of scientific knowledge.

12507/12947
CSO: 5400/3002

## CORONARY DISEASE SECOND BIGGEST KILLER IN HONG KONG

Hong Kong HONGKONG STANDARD in English 13 Nov 85 p 5

[Text]

IF YOU feel a heavy pressure or discomfort on the chest while walking uphill, you should see a doctor immediately for it could be the symptom of coronary artery disease, the second biggest killer in Hongkong.

Speaking at a lunch meeting of the Rotary Club of Kowloon East, a cardiologist, who asked not be identified for ethical reasons, said the precise cause of the disease was unknown.

When discovered at an early stage, the disease is curable by a new form of surgery, which is simple and has a high success rate.

But many people in Hongkong delay appropriate treatment and take medicine without a doctor's prescription which can be very dangerous and sometimes fatal, he said.

The doctor said the patient would feel pain near the chest when the coronary artery, which supplied blood to the heart, was blocked by cholesterol, he said.

The operation, which was introduced in Hongkong a year ago, involved inserting a catheter with a plastic inflatable balloon into the obstructed area. The artery can then be widened by inflating the balloon.

At present, only one hospital in Hongkong provides this service and five people have successfully undergone the treatment.

The advantage in this surgery was that patients were required to stay in hospital for only two days and recovery was almost instant.

He said, as an alternative, one could implant a vessel, usually taken from the patient's legs, to reroute the blood flow to bypass the obstruction.

But this method required specialised skills and a longer period of hospitalisation, he said.

Some factors like smoking, stress, high blood pressure, diabetes and overweight were associated with the disease.

But the best way was to prevent the disease by doing exercise such as strolling and jogging, he said.

He said Hongkong people had many misconceptions about the disease and very often delayed treatment which lessened the chances of recovery.

Many locals had the misconception that eating pig's heart could improve the function of our hearts, he said.

Another common misconception was that milk contained a large amount of cholesterol when in fact it contained a high level of protein which was good for health.

/9274
CSO: 5450/0066

HONG KONG

## BRIEFS

HONG KONG ULCER STATISTICS--About 250,000 people in Hongkong suffer from peptic ulcers and the number is increasing, a medical academic said yesterday. Peptic ulcers which attack the stomach and the duodenum leading to the small intestine tend to be more prevalent in men between the ages of 30 and 60, said Prof S. K. Lam of the University of Hongkong. Prof Lam, who heads a university peptic ulcer research team, held a press conference before a symposium on the subject. Unlike in most Western countries where the annual incidence over the past decade has been static or declining, the number of cases in Hongkong has shown a marked increase. Although few suffers die from peptic ulcers, it is a chronic condition causing great pain. The one-day symposium organised by the Hongkong Society of Gastroenterology was attended by more than 300 local medical practitioners and representatives of the Centre for Ulcer Research and Education based in Los Angeles. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 5 Nov 85 p 10] /9274

AIDS BLOOD TESTS--A few AIDS tests carried out on donated blood in the Hongkong Red Cross blood bank have proved positive. The tests, which began at the end of August, are designed to detect antibodies produced by the body's defence system to fight the AIDS virus. The tests were introduced in an attempt to reassure people there is no risk of contracting the deadly disease from donated blood. The director of the Blood Transfusion Service, Dr Susan Leong, said yesterday that a small number of screenings for antibodies of the Human T-Lymphotropic Virus Type-III (HTLV-III) in donated blood showed positive results. The presence of the antibodies indicates a person has been exposed to AIDS (acquired immune of deficiency syndrome) virus, but it does not mean they will develop the disease. She said results of the tests would be released next month. Dr Leong was speaking to reporters after the annual general meeting of the organisation yesterday. The total amount of blood collected from April last year to March was 136,801 units, a 6.4 percent increase over the previous period. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 2 Nov 85 p 16] /9274

CSO: 5450/0067

INDIA

# PAPER REPORTS INDIAN POSITION, SCARE OVER AIDS

## No Decision on Blood Imports

Bombay THE TIMES OF INDIA in English 8 Nov 85 p 18

[Text]

BOMBAY, November 5.

WHILE China and other countries have stopped imports of blood and its derivatives from western countries for fear of AIDS infection, Indian authorities have yet to make up their mind whether to continue to do do.

Since there are virtually no fractionation plants in the country to extract from the donated blood factor VIII, gamaglobulin and serum albumin used by the patients of hemophilia, hepatitis and burn cases, respectively, India's dependence on imports of these blood products has increased over the years. And because AIDS can be passed to others through the use of AIDS-tainted blood or its products, the danger is all the greater.

According to Dr. V. Ray, officer-in-charge of KEM blood bank, the major problem is that India has yet to go in for blood component therapy — a prerequisit for seperating donor blood into its numerous components. These components are required for the treatment of a number of diseases like leukaemia (blood cancer), hepatitis, liver disorders, gastro-intestinal bleeding.

The country's only fractionation unit is in Haffkine Bio-pharmaceutical Corporation. This 40 year-old-plant is not only not able to meet the full requirements of even Bombay, but it is obsolete.

Another problem is that unlike other countries which use PVC bags (special plastic sachet) for collecting blood from donors, India is still sticking to the outdated bottle system.

"For blood component therapy we shall have to switch over to the bag system so that plasma can be easily separated from the donated blood and processed in the plasma fractionation unit," Dr. Ray said.

The main advantage of PVC bags is that they involve a closed system in which blood can be easily collected from donors and divided into components without any exposure. These extracts can be preserved for over six months.

The Central government is to be considering the setting up of three pilot fractination units based on the most advanced technology known as column-chromotography. One of the units is expected to be installed in Bombay.

With the introduction of PVC bags it would be possible to administer specific component of blood required by patients. "One unit of blood could then be used for more than five patients requiring different fraction. Contamination of blood would be non-existent and the load on voluntary donors much less," Dr. Bhatia said.

In many countries a good proportion of the donated blood is fractionated into components. But in India only an insignificant proportion of the total is used to prepare fraction by means of centrifuing, a primitive technology which can separate only a few components and that too not free form contamination. Column-chromotography is the latest and safest way of fractionation but Indid did nto posses the expertise to handle the this technology. Secondly, there must be a continuous flow of about 500 litre of plasma in the columns. This amounts to around 5,000 bottles per month.

It is, therefore, imperative to secure an adequate quantity of donor blood by educating public opinion and allaying unfounded fears that donation may cause weakness. This can be accomplished by the electionic media through good documentaries on the role of donors in the nation's medical care system.

Self-sufficiency in blood and blood products has become all the more important in view of the AIDS epidemic in the west, which has affected around 15,131 people in nearly 43 counties. Doctors say that if AIDS comes to India the squalid conditions and poverty would provide a fertile ground for its rapid spread.

## Scare in Kerala

Bombay THE TIMES OF INDIA in English 8 Nov 85 p 18

[Text]

TRIVANDRUM, November 6: The Acquired Immune Deficiency Syndrome (AIDS) has scared Kerala youth. A young man reportedly committed suicide thinking he had contracted the dread virus.

The AIDS phobia is more pronounced in port towns and other centres frequented by foreigners. Things "phoren" have lost their glitter. People now look askance at white-skinned visitors.

Scantily-clad hippies resort to places like Thekkady, where they get ganja grown at low prices in the Idukki high ranges. They live in cheap lodges and huts in and around the Kovalam beach resort.

Authorities fear these free-living visitors may be carrying AIDS and spread it through women of easy virtue who flock to tourist resorts.

A practitioner of the "Siddha" system of medicine in Trivandrum, however, thinks there is no cause for alarm. He says that the breakdown of the body's immunity can be successfully treated in less than a month with the help of two drugs derived from mercury for a rupee a day! Still, most are inclined not to take any chances.

A social service organisation of Trivandrum has launched "Project Hope" to educate the people, especially youth, on the various aspects of AIDS and how to avoid it.

/9317
CSO: 5450/0059

INDIA

# MEDICAL CENTER SUCCESS IN LEPROSY TREATMENT NOTED

Madras THE HINDU in English 31 Oct 85 p 6

[Text]

Dr. N. S. Murali, Honorary Secretary, Voluntary Health Services, Madras, writes:

A report of the Special Correspondent of THE HINDU dated October 28 under the caption "New findings in leprosy research: pathologist gets award" has brought out interesting details which emphasise the fact that deficiency in the immune regulation in lepromatous leprosy (LL) patients may be reversed by suitable therapeutic or prophylactic intervention. The Editorial of THE HINDU dated October 29 has appreciated the work and gives the scientist the credit of discovering the same.

The major finding of the above scientist is stated to be that the reasons for immuno-suppression in LL are physiological. The patients, according to the report, have T-lymphocytes capable of recognising the antigen, but the immune regulation is defective. There is a proliferation of antibodies, but a depression in antigen specificity. The scientist also seems to emphasise the fact that when interleukine-2 (IL2) level is enhanced in LL cases, only 60 to 70 per cent of them have the right type of lymphocytes which responded well. The rest showed no response at all. In the scientist's opinion—"It, therefore, appears that it is probably not just IL2."

While congratulating the scientist for the painstaking work in a difficult field of research where new concepts take a long time to become acceptable, it is a pleasure and a privilege for me to state that similar conclusions have been expressed during 1982 by Dr. N. Veeraraghavan of the Research Unit on Leprosy at the VHS Medical Centre, Adyar, Madras, in the Centre's research publication titled "Studies on Leprosy.",

If one glances through the publication, it may be seen that even in the 'Introduction' the immunological defect in LL is discussed regarding the possible mechanism involved in its development and the rationale to be adopted in its treatment by certain common drugs which prevent the release of histamine and the histamine-induced suppressor factor.

These observations have been brought to light in THE HINDU dated July 18, 1982 under the caption "Breakthrough in fighting leprosy." The relevant excerpts are given below:

'The continuous release of histamine suppresses the activity of lymphocytes responsible for immunity in leprosy patients. This led to rapid and uninhibited multiplication of the leprosy bacilli and their spread to all parts of the body.'

'So, in the treatment of the disease, a rational method could be adopted combining antihistaminics with the routine potent anti-leprosy drugs. The cheap, readily available antihistaminic, pheniramine maleate, was tried on leprosy patients by the State Leprosy Officer of the Tamil Nadu Government with very encouraging results.'

'Vaccine might be useful only when the immunity mechanism was set right by preventing the release of histamine.'

Dr. Indira Nath has expressed her belief that a thorough understanding of the immunology of human leprosy is crucial for the development of a vaccine for the disease. This point has also been clearly brought out in the monograph published by the VHS in chapter XIII "Vaccine against leprosy." The original text can be summarised as follows: "It should be possible for the macrophage to function efficiently when the suppressor effect due to release of large quantities of histamine is removed and the function of the T-cells is restored by drugs which control the release of histamine from mast cells and basophils. It is likely that with the restoration of cell mediated immunity, the injection of heat killed *M.leprae* will boost up the cell mediated immune response and help in clearing the bacterial load. It is possible that under these favourable conditions, vaccination with live BCG alone might give good results, or, the injection of a mixture of killed *M.leprae* and BCG may give better results. It may be worth trying the ICRC vaccine."

Based on these conclusions, the Out-patient Department of the VHS Medical Centre has been treating LL cases, under the supervision of Dr. Gangadhar Sharma, former State Leprosy Officer of the Tamil Nadu Government, with dapsone supplemented by antihistaminics and adrenergics with impressive results. During this treatment small nodules disappear leaving a wrinkled area; big nodules show darkening and wrinkling; raised plaques become flattened; and there is fall in the bacterial index.

Encouraged by these observations, a limited scale study has been undertaken elsewhere in Tamil Nadu by Dr. Gangadhar Sharma to compare the current multi-drug therapy (dapsone, rifampicin and clofazimine) with dapsone supplemented by theophylline, pheniramine maleate and terbutaline. The preliminary results indicate that at the end of the first year of treatment with the regimen under trial, the conversion to negativity is about five times more than that with multi-drug therapy. At the end of the second year, while the multi-drug regimen has improved in its performance over the first year, the new regimen was still found to be more effective by a factor of 2.5. The results of this study, which has been in progress for over two years, is due for publication shortly. These findings may incidentally interest the readers of THE HINDU, whose Editorial referred to above, has drawn attention to the value of multi-drug therapy to render patients non-infectious in a short time.

As the Secretary of the VHS Medical Centre, I will be failing in my duty if I do not bring to light the above details

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CSO: 5450/0056

# TAMIL NADU GOVERNOR ASKS FOR WAR ON DIARRHEA

Madras THE HINDU in English 2 Nov 85 p 9

[Text]

MADRAS, Nov. 1.

The Governor, Mr. S. L. Khurana, on Friday, called for an all-out war against childhood diarrhoea, the greatest killer in India. An estimated 1.5 million children under the age of five fall victims to diarrhoeal disease every year.

Inaugurating the five-day conference of the Indian Society of Gastroenterology, the Governor said health personnel should be fully made sensitive to the demands of diarrhoea management and control.

The Governor emphasised that public sanitation, which had suffered in the past in urban areas owing to heavy cost of underground drainage systems and in rural areas for lack of proper motivation and participation, must be accorded a high priority in the Seventh Plan.

Referring to the high incidence of jaundice (viral hepatitis), he said that according to a study by the Indian Council of Medical Research the disease virtually acted as a degenerating influence on human resources. "While there has been an increased awareness of viral hepatitis being a major public health problem with a high frequency and the resultant morbidity and mortality, not much seems to have been done to reduce its incidence, probably because of its mask of a slow and creeping disease". Identification and treatment of hepatitis would have to be on multiple fronts. Prevention of water contamination had to be accorded the highest priority. "There ought to be greater dissemination of knowledge and identification techniques in district and taluk hospitals and the PHCs.

The inauguration of the conference was preceded by a Continuing Medical Education programme in which teachers from various parts of India and abroad covered all aspects of digestive diseases, and an oration by Prof. N. C. Nayak on the status and impact of viral hepatitis.

Dr. H. V. Hande, Health Minister, who released a medical volume, an update of digestive health and diseases, commended the efforts by Dr. N. Madanagopalan and Dr. N. Rangabashyam, convenors of the CME programme, for bringing out the volume containing a wealth of material on preventive, investigative, curative and scientific evaluation aspects of digestive diseases.

**Gastroenterology depts for 2 more hospitals:** Next year two more hospitals would be provided with fullfledged gastroenterology departments, Dr. Hande said. On the preventive side, besides making available safe potable drinking water, the oral rehydration programme should be further intensified. In just four years of its introduction, the programme had greatly helped in bringing down infant mortality. From about 6,000 oral rehydration packets in 1980, the State today distributed 2.4 million packets.

Dr. S. C. Shah, president of the Indian Society of Gastroenterology, which has organised the conference in association with the Society of Gastrointestinal Endoscopy of India and the Liver Study Group of India, said chronic pancreatic diseases had shown a 10-fold increase in the country in the last few years. Not many hospitals were provided with facilities for surgery. There were only 18 gastro-intestinal centres of international standards in the country, which had over 120 medical colleges.

Mr. R. Shanmugam, Health Secretary, released a souvenir. Prof. Nayak declared open a scientific exhibition.

The ISG presented awards to doctors who had done outstanding work in gastroenterology and to the Christian Medical College, Vellore, for producing an outstanding research paper.

Dr. B. Sundaravadanam, chairman of the organising committee welcomed the gathering. Dr. B. Krishna Rau, secretary, proposed a vote of thanks.

/9317
CSO: 5450/0062

INDIA

## BRIEFS

GASTROENTERITIS AFTER CYCLONE--Calcutta, Oct 31--The death toll due to gastroenteritis has risen to 22 in the cyclone-hit district of 24-Parganas, the West Bengal minister of state for health, Mr Ramnarayan Goswami, said here today. So far, 140 cases of gastroenteritis have been reported. Fifty-one doctors have been sent to the three sub-divisions Basirhat, Diamond Harbour and Alipur Sadar where the maximum number of people have been affected by the disease, he added. The minister said he had not received reports from any other districts about outbreak of epidemic in the wake of the recent cyclone and tidal bore. According to him, 10,177 persons have been treated in 24-Parganas during the past few days for various ailments. Eight additional camps have been opened in the three affected sub-divisions. He said cases had been reported from 195 isolated villages. He will leave for Basirhat tomorrow to supervise the medical arrangements. Dr Goswami said that he was yet to receive reports on the outbreak of encephalitis in Burdwan district. [Text] [Calcutta THE TELEGRAPH in English 1 Nov 85 p 2] /9317

CHILDREN'S MYSTERY DISEASE--Jamshedpur, Nov 5 (PTI)--A mysterious disease at Thakur village, about 115 km from here under Noa Mundi block Singbhum district, has left six children dead and 11 others affected during the last four days, according to official sources. Though the cause of the disease was not known, it was presumed to be water-borne, according to a physician of Gua Mines hospital. According to the secretary of Gua Mines Workers' Union, there was no water source in that area, compelling people to drink from the polluted river, Karo. [Text] [Calcutta THE TELEGRAPH in English 6 Nov 85 p 4] /9317

ENCEPHALITIS IN BURDWAN--Burdwan (PTI)--Encephalitis has so far claimed 38 lives and affected 108 others in Burdwan district, according to the chief medical officer. Sources here said on Saturday that the maximum number of ailments had been reported from the Burdwan Sadar division. [Text] [Calcutta THE TELEGRAPH in English 11 Nov 85 p 2] /9317

CALCUTTA MALARIA STATISTICS--Dr Subodh Dey, a member of the Calcutta Municipal Corporation's Mayor-in-Council in charge of Health, said in Calcutta on Tuesday that a lot had to be done to eradicate malaria from the city. Recently, he had received reports of malaria attacks from different parts of Calcutta. Several Health Department officials, however,

stressed that the number of malaria attacks in the city was on the decline. They claimed that last year 26,135 malaria cases, including 1,165 malignant ones and two deaths had been recorded. But till November 1 this year, only 17,800 cases, including 600 malignant ones, had been reported. Dr Dey said that a scheme had been taken up to restrict the breeding of mosquitoes in Calcutta. Under the scheme, guppi fish were being bred in drains and reservoirs in Jadavpur, canals extending from Baghbazar to adjoining areas of Salt Lake, drains in Manicktolla, and certain areas in Garden Reach and Alipore. Oil was being sprayed to stop the breeding of larvae and vantog machines were also used to kill adult mosquito. [Text] [Calcutta THE STATESMAN in English 13 Nov 85 p 3] /9317

**CHOLERA DEATHS REPORTED**--Midnapore, Nov 2--Three deaths due to cholera were reported from three villages under Contai (Block 2) today, according to an official of the district health department. Two persons had earlier died of this disease in the district. The official said 31 persons afflicted with cholera were treated in the district hospital. The disease had broken out in many places after the cyclone, he said. Mr Benoy Chowdhury, state minister for land and land reform, visited the affected areas during the day. [Text] [Calcutta THE TELEGRAPH in English 3 Nov 85 p 2] /9317

CSO: 5450/0063

INDONESIA

## BRIEFS

GASTROENTERITIS IN IRIAN JAYA--Jayapura, 23 Oct (ANTARA)--Gastroenteritis is again rampant in two sub-districts here for [the] past three days, a year after the region was declared free from the disease, a Jayapura health official reported to ANTARA Wednesday. Until this news item went to the press, a couple of children have been struck by the disease, one of them died and the other [is] still under treatment in [the] hospital. To prevent the disease from spreading, the Jayapura health office has sprayed the infected areas with insecticide and added chemical substance to water reservoirs to kill the mosquitoes which carry the disease. [Text] [Jakarta ANTARA NEWS BULLETIN in English 23 Oct 85 p A2] /9274

DENGUE IN IRIAN JAYA--Jayapura, 24 Oct (ANTARA)--A DHF (dengue hemorrhagic fever) epidemic has swept two neighbourhoods here in the last three days after the region had been free from the disease for about a year. So far a child has been killed by the epidemic and another one has been hospitalized, Dr Ekawirana, the head of the local health service said Wednesday. He said the epidemic was confirmed Friday (18 October) when the two children were brought to the hospital with the disease. Dr Ekawirana said his side had alarmed the people of the epidemic and had called on them to bring anyone allegedly infected by the disease to the nearest hospital for treatment. Measures have been taken to curb and prevent the epidemic from spreading to other places, he added. [Text] [Jakarta ANTARA NEWS BULLETIN in English 24 Oct 85 p A3] /9274

DENGUE FEVER OUTBREAK--Jakarta, 16 Dec (AFP)--An outbreak of dengue haemorrhagic fever killed at least 30 people in West Kalimantan Province in the first half of December, ANTARA newsagency said today. The dead included 22 children under 12 years old who were among some 170 people suffering from the disease who were treated at the public hospital of the provincial capital of Pontianak, ANTARA said. Another eight people had died from among 43 persons afflicted with the disease in Sungai Raya Singkawang District, some 110 kilometers (69 miles) north of Pontianak, the agency said, quoting the chief of the Provincial Contagious Diseases Eradication Service, Dr Rachman Noor. The large death toll was mainly the result of most of the patients having been taken too late for medical treatment, Dr Rachman said. The province was proclaimed free of dengue in 1980. [Text] [Hong Kong AFP in English 1435 GMT 16 Dec 85 HK] /9738

CSO: 5400/4338

JAMAICA

## MINISTER OF HEALTH AIRS PLANS FOR SERVICE IMPROVEMENTS

Kingston THE DAILY GLEANER in English 6 Nov 85 p 8

[Last of a three-part series of interviews on the Health Services between Dr. Ken Baugh, minister of health, together with a well-known senior private medical practitioner, and the interviewer Morris Cargill]

[Text]

**DOCTOR:** We were talking about the whole structure of health care, beginning with the Primary Health Care clinics, and then moving right up to the hospitals. Let us come back now to the main hospitals.

**CARGILL:** I would like to ask something at this point. You have talked about having one comparatively large hospital in each parish. But would this not lead you into the kind of expensive disaster that has been exemplified by Cornwall Hospital?

**MINISTER:** Not necessarily, if we are careful. You must remember that Cornwall was conceived in the 60's when fuel was cheap. As steam was needed for the autoclaves, the designers decided to do everything by steam, including the air-conditioning. It might have been foreseen that this kind of thing would become far too expensive if fuel costs escalated.

**DOCTOR:** What did Cornwall cost?

**MINISTER:** At the time it cost $22 million Jamaican to build. But this was not the real problem though it was too much. The real problem was that when it opened in 1974 it cost some $5 million Jamaican a year just to maintain. An impossible figure for our resources. So the whole place simply ran down. The air-conditioning and the boilers broke down. The plumbing went out of order.

**DOCTOR:** To a somewhat lesser extent, did this not also apply to the new wing of the KPH.

**MINISTER:** Yes indeed. The air-conditioning system was also wrong there from the start. A new system must now be put in.

**CARGILL:** But surely this could be called very bad management and planning?

**MINISTER:** Yes, if one could have forseen the huge escalation in fuel costs.

CARGILL: But how can white elephants of this kind be avoided in the future?

**MINISTER:** While we need one large hospital in each parish, this does not mean that they must be on the scale of Cornwall. We simply cannot afford to maintain that kind of hospital. We are doing the best we can to make Cornwall workable but that is all we can do now.

**CARGILL:** What is the state of hospital maintenance now, generally speaking.

**MINISTER:** Improving, but far from satisfactory. You must remember where we are coming from. During the 70's the maintenance of buildings and equipment ran down. This was not only in hospitals but every-

where, in the Courts Offices, for example, and in all public institutions. The big problem today is just to restore the situation, before we can improve it.

**DOCTOR:** I understand that there is to be a new medical laboratory in Kingston?

**MINISTER:** Yes. We have raised $19 million Jamaican from the European Development Fund, and with this we are well ahead on the planning of a new lab. I might add that we have also got $13 million U.S. from the World Bank, to be used to put a really great thrust behind Family Planning. Not only the condition of Health Care, but also the condition of our system of education, of employment, indeed of everything you can think of, depends upon our properly controlling the growth of our population.

**CARGILL:** Have our present family planning efforts (I prefer to call a spade a spade and use the term birth control) been having a significant impact?

**MINISTER:** Not bad at all, but still not nearly good enough. Amongst better off people family planning is now well understood. But we have to bring it to the vast majority among whom overbreeding is a serious problem.

**DOCTOR:** May I go on to something else. To return to medicine, what does it cost the country to produce a fully qualified doctor?

**MINISTER:** It cost $75,000 Jamaican. This is small compared with what it costs in the U.S. but it is a lot to us.

**CARGILL:** That is a large cost, in view of the fact that we lose each year to foreign countries half of the Jamaicans we train. As we lose about 30, we are losing 2¼ million dollars every year.

**MINISTER:** Yes. Which is why we are trying to design the medical services to run on as few fully qualified doctors as we can. It is a great shame we lose so many. The bigger hospitals must, of course, be staffed by highly trained doctors; but in the smaller 'feeder' hospitals we envisaged, we need fewer fully trained doctors because we could use paramedics. Certainly, in the health care clinics we don't need fully trained doctors at all; we can use people specially trained in Health Care.

**CARGILL:** How do you see the future of our medical system in view of our contracting resources?

**MINISTER:** Strangely enough, I am very optimistic. As I told you earlier, much of the money we have been spending in the past has virtually been wasted; wasted on duplication of services; on inefficiency, and, in the case of catering and supplies there has sometimes been corruption and dishonesty. Once we can trim the fat and streamline the system, we can get a better service for less money.

**CARGILL:** How does the level of medical care in the public sector compare with that of private medicine?

**MINISTER:** About equal, I should say. The level of medical care in the public sector is high. Of course, we have to bear a few things in mind. If you go into a public hospital you are not going to be as comfortable as if you had spent a lot of money for a room in a private hospital. While this may affect your comfort it won't affect your level of surgery or treatment. To get certain kinds of treatment you may have to wait, and there are delays, of necessity. But on the whole our public medical services are good, and can be made very much better. We have had no serious widespread epidemic in years and our infant mortality figures are lower than most countries in the world.

**CARGILL:** What you really need, then, is more money and you need to pull the whole system together?

**MINISTER:** We are not going to get more money at present, but we can certainly pull the system together and make it more logical for the times we live in. Of course, there are always people, doctors especially, who automatically resent any kind of change; and the whole public medical system is, alas, encrusted with bureaucracy.

**CARGILL:** Can you successfully fight both the conservatives and the bureaucracy?

**MINISTER:** I am having a damn good try. Wish me luck!

/8309
CSO: 5440/24

JAMAICA

## BRIEFS

IMMUNIZATION DRIVE--Kingston, Oct. 30 (JAMPRESS)--The Senior Medical Officer (SMO) for Kingston and St. Andrew, Dr. Peter Figueroa, has said that 25 percent of the children in this area from 0-1 year-old have not been fully protected against one or more of the contagious diseases. In a statement to JAMPRESS, Dr. Figueroa said the Kingston and St. Andrew Health Department was aiming to immunize all children against Tuberculosis (BCG), DPT (Diphtheria, Pertussis, Tetanus) and Polio. The drive, he said, would continue through early December and January next year. With financial support from the United Nations Children's Fund (UNICEF) the SMO said, the department conducted special immunization sessions at ten selected health centres on October 15 and 16. Dr. Figueroa also said that special outreach clinics would be held in communities where immunization levels were particularly low. [Excerpts] [Kingston THE DAILY GLEANER in English 4 Nov 85 p 2] /8309

CSO: 5440/24

MALAYSIA

## BRIEFS

TYPHOID EPIDEMIC HITS KELANTAN--Kota Baru, Mon.--The typhoid epidemic which hit Kelantan in 1977 has returned. From January to Oct 5,521 cases were reported, mostly from the Tumpat district which has 142 reported cases, Kota Baru (145 cases), Tanah Merah (74 cases) and Pasir Mas (61 cases). Last year 437 cases were reported, the highest in the Kota Baru district which recorded 110 cases. In 1977, 523 cases were reported. These figures were contained in a report prepared by the State Medical and Health Services Department. The report said the present epidemic started last year. Studies conducted on cases reported last year showed that typhoid mainly attacked those between the ages of seven and 42--29.3 percent of the total cases reported for the year. The department's record also showed that the disease mostly attacked those between the ages of 15 and 24 this year. [Text] [Kuala Lumpur NEW STRAITS TIMES in English 12 Nov 85 p 4] /13046

CSO: 5400/4332

MEXICO

22 AIDS CASES DETECTED NATIONWIDE; 12 DEATHS

Mexico City EXCELSIOR in Spanish 23 Aug 85 STATES section p 1

[Article by Jose Antonio Garcia, EXCELSIOR Correspondent]

[Text] Toluca, Mexico, 22 August -- Enrique Verduzco Guerra, chief of Communicable Disease Control of the Mexican Social Security Institute [IMSS], disclosed that 22 cases of Acquired Immune Deficiency Syndrome have been identified throughout the country and that 12 of those affected have died.

He also stated that 95 percent of those suffering from the disease, all of whom are entitled to IMSS benefits, are homosexuals, and that the ten still surviving have not "the least chance of being cured."

In Mexico state alone eight cases of AIDS have been "identified and established" in the valley of Cuautitlan-Texcoco. "We have had, all together only two cases in which the disease was caused by transfusions of blood infected with the virus," he stated.

He said that the chances of finding a vaccine against the fatal disease, "are very small in view of the very special characteristics which we have found in the virus. For example, of the 22 cases recorded by the IMSS, we have found 18 genetic variations of the causative organism."

And "so great a variety means that thus far, and in spite of the efforts which are being made in countries which have available the greatest technical advances in the health sector to date, there is as yet no cure nor method of preventing the disease, just as homosexual relations cannot be prevented, nor can we eliminate the need for blood transfusions."

Danger of Epidemic

Dr Verduzco Guerra said that it is urgent that the most severe and concrete measures be taken to control the AIDS outbreak, "since this thing can become a plague of formidable consequences if we allow the number of cases to continue growing at the present rate.

In the meanwhile Dr Enrique Reyes Hernandez, deputy director of the Tijuana General Hospital of Tijuana, informed EXCELSIOR today that Mrs Elisabeth

Soto, aged 24, actually died of AIDS in that border city three days ago.

He said that the woman contracted the disease in Los Angeles, California, via a blood transfusion.

12383
CSO: 5400/2098

MOZAMBIQUE

## USSR HELPING TO COMBAT MALARIA IN FIVE AREAS

Maputo NOTICIAS in Portuguese 17 Oct 85 p 3

[Text] The Soviet Union has donated various materials with an estimated value of about half a million dollars for the implementation of the emergency program to combat malaria which is scheduled to begin in our country this November. The program, regarded as temporary, will cover the five zones in which the malaria vector is found in the greatest numbers. The health bodies say that this measure, to be implemented in the cities of Maputo, Beira, Nampula and Moatize and in the Limpopo Valley, is designed to give immediate protection to 500,000 persons, in addition to another million and a half residents who will benefit from the results of the program to combat the disease.

This information was announced by Dr Sassan Suleimanov at a meeting held recently at the Ministry of Health and attended by NOTICIAS reporters and a group of doctors specializing in this field. The director of the National Health Institute, Dr Joao Lima Schwalbach, presided at the meeting.

Its purpose was to publicize the program of measures to be carried out in combatting malaria and the preparations for implementing the emergency program to eliminate the vector of the disease. This program is to be carried out shortly in five areas of our country.

According to Dr Sassan Suleimanov, a Soviet physician who will work with the Ministry of Health and will head the medical team which will carry out the program, this undertaking was launched on the basis of a preliminary study which made it possible to establish the areas in which there are the largest numbers of the mosquito which transmits the disease.

This Soviet physician further said that it was on the basis of this study that it was decided that the vector should be attacked first of all in zones of vital importance, and that the particular aspects of each of the zones should also be studied.

Another aspect mentioned by this physician was the pursuit of research on the basis of a longitudinal study, the first of its kind ever carried out in our country. As was explained at the meeting, this study made it possible to

establish that the mosquitoes are most active in the hot season, and also to identify the transmitters of the disease.

It was on the basis of these studies that it was determined that the emergency program for combatting malaria should cover the cities of Maputo, Beira and Nampula, the town of Moatize and the Limpopo Valley. This program, although regarded as temporary, because of the limited financial resources of the country, will, the health bodies believe, make it possible to provide immediate protection to more than 500,000 persons, in addition to another million and a half who will benefit indirectly from the campaign against the disease.

THe Soviet Union has contributed seven automobiles, 100 tons of DDT, 150 pumps for spraying, 70 microscopes and spare parts for the implementation of the program. The budget for this equipment, according to Dr Suleimanov, comes to about half a million dollars, and two-thirds of it is already in the country, consigned to the city of Maputo.

This plan may be made permanent in years to come, this newspaper was told by health officials.

Until the final plan has been carried out, the public health bodies say that a combination of methods must be continued. They include combatting the vector, in both its larval and adult stages, treating patients to eliminate malaria, and also environmental cleanup.

The Soviet doctor said on this occasion that although the development of the country may be the key point in the efficient battle against malaria, the participation of the community in eliminating this disease is imperative.

Chloroquine No Longer Effective

In view of the upsurge of malaria, which is caused by a parasite, Plasmodium falciparum, which establishes itself and lives in the human bloodstream, the Danish doctor working with the Ministry of Health, Dr Allan Schapira, said that the disease has developed a resistance to the medication currently in use. He added that a patient suffering from the resistant malaria cannot be cured entirely by chloroquine. Although this type of disease is no novelty to health experts, it has been noted that the use of chloroquine is no longer effective in eliminating the disease.

Dr Alan Schapira further said that in the past 4 years, chloroquine has been the best medication for treating malaria. It is inexpensive and, given in tablet form, it has contributed greatly to saving millions of lives.

Currently, amodiaquine hydrochloride, which is related to chloroquine, is regarded as effective in treating the resistant malaria.

"Our concern is that the parasites may resist other medicines. However, we agree that cases of malaria should be treated with chloroquine first, and only later, when its inefficiency is clear, should treatment with other medicines be undertaken," Dr Allan Schapira explained.

This Danish physician also said that every case of malaria should be analyzed in the laboratory before medicines are prescribed. This measure is designed to determine the seriousness of the disease, and also to prevent the parasites from spreading.

To ensure the success of this effort, a national program to strengthen the laboratory network was launched at the beginning of this year. According to Dr Allan Schapira, this program was coordinated with the use of the medicines.

Currently, the health bodies in our country are concerned about getting the medicines to where they are needed, in order to combat malaria effectively.

Moreover, the information given our reporters also indicated, a number of doctors are authorized to work with the laboratories and to prescribe this type of alternative medicine as well, and there is additionally a plan to train more doctors for this purpose.

5157
CSO: 5400/25

MOZAMBIQUE

## COMMUNITY ROLE IN COMBATTING MALARIA EMPHASIZED

Maputo NOTICIAS in Portuguese 19 Oct 85 p 2

[Text] "The task of combatting malaria or carrying out preventive campaigns does not fall to the state alone. The community plays an important role too, particularly in the implementation of programs designed to eliminate the causes of the disease. It is true that some breeding grounds existing in the city have developed as a result of the lack of concern on the part of residents themselves." These views were expressed by a resident of the Malanga district to whom our reporters talked recently about the emergency program to combat malaria and the need for community participation in this campaign. Other citizens who talked with us felt the participation of the dynamizing groups in this process is necessary, particularly in educating the people about adherence to health rules, on both the collective and individual levels.

The health structures recently established the fact that certain zones in the country are experiencing an epidemic peak of malaria. In the particular case of the city of Maputo, this situation dates back to the early months of this year.

Again with regard to Maputo, it is believed that if rainfall is normal at the end of this year, this situation may be still further aggravated.

According to studies made by the health structures there is a new development, in that malaria cases resistant to chloroquine are beginning to be seen. This is contributing to making the already in itself alarming situation more serious.

According to information obtained from the health bodies, an increase in the number of mosquito-breeding grounds has been seen following the drought in 1982 and 1983, the rainfall recorded subsequently, and then tropical storm Domoina, with a resultant increase in the mosquito population.

The emergence of a form of malaria which is resistant to the chloroquine, these same studies show, occurred following the massive arrival in the city of individuals from rural zones. Recently the health director for the city of Maputo said that the first cases of malaria resistant to chloroquine began to be seen in 1983. The following year, the situation was not serious but

continued to be worrisome. And it is since that time that finding alternatives to deal with the situation has become indispensable.

Suggested Actions

In view of this situation, which is moreover not very different from that found in other parts of the country, a program regarded as an emergency measure was drafted. Its immediate goal is the reduction of the centers in which mosquitos reproduce.

More than 10 sites regarded as permanent breeding grounds for these insects were identified in Maputo. They include sites located in the vivaria of the executive council, the golf course in Costa do Sol, the Polana-Canico district, the Maxaquene lowland area, the districts of Malanga, Luis Cabral, Inhagoia and the Infulene Valley.

It is on these areas that the work to be done within the framework of the emergency program drafted by the health bodies will be focused.

Community Involvement

The task of fighting to eliminate malaria does not fall to the state (city health office) alone. Other bodies are also called upon to make their contribution. The APIE [Administration of State-Owned Buildings], the Ministry of Construction and Water Resources and the Urban Services Office of the Executive Council are among the bodies whose participation in the process will be a determining factor in the success of the campaign, our reporters learned from the authorities.

Because the emergence of many of the breeding grounds found in Maputo was caused by the people themselves (directly or indirectly), they too are called upon to contribute actively to the tasks involved in the program.

As was stated recently by the health authorities, some individuals are (unwittingly) creating centers where mosquitos breed by carelessly discarding old tires, bottles, garbage cans and other containers in which water may stand for a long time after it rains.

In zones such as Inhagoia and Malanga, there is another category of breeding ground, apart from the old and abandoned tires, garbage pails, trash cans, bottles and other recipients, and it too is the responsibility of the residents--banana trees.

"Banana trees are potential breeding sites for mosquitos. Whenever it rains, each leaf and branch provides ideal shelter for these insects. It is for this reason that it is not advisable to plant these trees in residential zones. But as has unfortunately happened in Malanga and Inhagoia, the residents have not paid attention to this fact," the director of the Medical Prophylaxis and Study Center, Dr Oscar Monteiro, said a few days ago.

Our reporters, who visited the Malanga zone last Wednesday, talked with some residents, some of whom were in the process of doing their laundry in the

pools found there. Generally speaking, the opinions expressed reflected understanding that the preponderant role in combatting malaria falls to the community, particularly where prevention of the disease is concerned.

Cecilia Machava, a resident of this district, believes that the task of combatting the disease is not the responsibility of the state alone. She said that elimination of the majority of the breeding grounds is the duty of the people who created them.

Eugenio Amadeu Anibal, also a resident of this district, is of the opinion that the dynamizing groups could play an important role in educating the people about the need to respect health rules for groups and individuals.

Moreover, some of the activities included in the program recently drafted are already under way. Information obtained from health office sources indicates that the Urban Services Office of the Executive Council has already undertaken the cleanup of drainage ditches in the Camping Park, a site regarded as one of the permanent mosquito-breeding grounds.

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CSO: 5400/25

MOZAMBIQUE

## BRIEFS

SOVIET SPECIALIST ON ANTI-MALARIA CAMPAIGN--"It is not enough to clean the drainage ditches; a permanent maintenance team is needed here," said Dr Gassan Suleimanov yesterday: He is in charge of the team of Soviet technicians who are participating in the execution of the emergency anti-malaria drive in Maputo. According to this specialist, the need for a permanent team to maintain the ditches is justified by the fact that, on the one hand, the action of the rain contributes to the clogging or of the ditches while, on the other hand, some people throw grass and other objects into the ditches, thus clogging them. Commenting on this point, Dr Oscar Monteiro said that it is the responsibility of the urban services of the capital city's executive council to organize a team which will permanently do maintenance work on the ditches, not only those in the area along Costa do Sol but also in other areas. Another idea advocated by the Soviet specialist has to do with the need for a permanent fight against malaria since, in his opinion, "emergency efforts are not enough. It is necessary to create proper conditions so that the places where mosquitos reproduce can be gradually eliminated." Health education for the citizens is another matter mentioned by Dr Gassan Suleimanov as being most important in making sure that the anti-malaria drive will produce the desired results. /Text/ /Maputo NOTICIAS in Portuguese 31 Oct 85 p 8/ 5058

CSO: 5400/36

PEOPLE'S REPUBLIC OF CHINA

## PUBLIC HEALTH MINISTER ADDRESSES INTERNATIONAL HEALTH SYMPOSIUM

HK270841 Beijing CHINA DAILY in English 27 Nov 85 p 1

[Article by Staff Reporter Liu Dizhong]

[Text] Guangzhou--Premier Zhao Ziyang urged all Chinese medical workers in the field of leprosy "to make persistent efforts to strive for the eradication of the disease by the end of the century."

The premier made the call in a message to greet the inauguration of China Leprosy Association, China Leprosy Foundation and China Leprosy Control and Research Center.

The message was read here yesterday morning at the opening ceremony of an international symposium of leprosy by Public Health Minister Cui Yueli who announced the founding of the two organizations and the center.

Xi Zhongxun, member of the Party's Political Bureau, was elected honorary president of the China Leprosy Association and Dr George Hatem (Ma Haide), a senior advisor of the Ministry of Public Health, president of the association and the foundation.

Held for the first time in China, the three-day symposium is being attended by about 300 Chinese and foreign leprologists, most from Third World countries. In his opening speech Cui described the symposium as part of the nation's open policy and of the joint efforts of the world community to wipe out the scourge of the disfiguring disease both in China and in the rest of the world.

The minister expressed his heartfelt thanks to those countries, world organizations and experts on leprosy for their sincere help and cooperation with China in the nation's control and scientific research work of the disease.

Leprosy has a recorded history of more than 2,000 years in China. Remarkable results have been achieved in the past three decades in the nationwide struggle against the disease. The disease has been more or less eliminated in about half of the nation's 2,000 counties.

But in curing the remaining 100,000 cases, said Dr Hatem in his speech at the ceremony, China is confronted with "an extremely difficult task" and has "a tremendous amount of work to do to reach the goal."

Dr Hatem, 76, started on leprosy prevention and control work in China in the 1950s. Last year he was the Damien-Dutton Award winner for his contribution to the country.

He said past leprosy control accomplishments gave him confidence that the disease could be eradicated in less than 15 years. He listed as the most decisive factors the socialist system, the nationwide support, the devoted and compassionate work of the 10,000 medical personnel in the antileprosy network and the help from international societies and foundations.

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CSO: 5400/4104

PERU

## BRIEFS

ILLNESS KILLS CHILDREN--Huanta, 11 Dec (AFP)--Health officials have reported that approximately 100 children of Ayacucho Department have died from an illness called paralyzing rabies, unknown until now, that kills in only 24 hours. Officials said that the epidemic was apparently caused by the decomposition of bodies left out in the open as a result of guerrilla actions. The symptoms of the illness are headache, vomiting, fever, convulsion, and paralysis. [Summary] [Paris AFP in Spanish 1553 GMT 11 Dec 85 PY] /8918

CSO: 5400/2021

PHILIPPINES

## 44 HEPATITIS CASES CONFIRMED IN TACLOBAN SCHOOL

Tacloban City EASTERN VISAYAS MAIL 2-8 Sep 85 p 6

[Text] An outbreak of hepatitis infection among Tacloban school children was reported last week by the Tacloban City health office.

Dr. Hermilo U. Quintero, Tacloban City health officer, said that 44 cases of hepatitis due to infections of virus Type "A" were confirmed among school children at the Sacred Heart School in Tomas Claudio St., of the city.

Sacred Heart School authorities declared a week-long school recess last week due to the spread of the hepatitis infection among its schoolchildren.

Quintero said that they suspected the infection was probably caused by food sold by itinerant vendors.

No fatalities from the disease has been reported among the victims and no new cases were reported since beginning this week, Quintero said.

He said the school kids felled by the mild hepatitis were confined in private hospitals, or were treated by private medical practitioners.

The symptoms of the disease are low grade fever for about five days, general body weakness, nausea or vomitting, abdominal pain, yellowish discoloration of the eyes and skin and dark yellow color of the urine, Quintero said.

In another development, another observed outbreak of viral infection in the city is the common sore eyes or "tagumata" as locally called.

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CSO: 5400/4328

PHILIPPINES

## BRIEFS

GONORRHEA UP IN MANILA--The Manila Health Department yesterday urged the public to observe strictly safeguards against gonorrhea in view of its increasing incidence in the city. At the same time, the MHD warned the people against the mounting death toll and incidence due to infectious hepatitis. City Health Officer Evangeline Suva said 16 more persons contracted gonorrhea for the week ending Nov. 2, bringing to 295 the total in Manila for the 14-week period from July 28 to Nov. 2. Dr. Suva said most of the cases were adolescents with ages ranging from 17 to 21 years. Suva also said three more persons died and 12 others were hospitalized due to infectious hepatitis in Manila for the week ending Nov. 2. (PNA) [Text] [Quezon City ANG PAHAYAGANG MALAYA 11 Nov 85 p 1] /12379

CSO: 5400/4328

PORTUGAL

## BRIEFS

VERIFIED AIDS CASES--More than 3 dozen cases of AIDS have been verified at various hospitals in Lisbon, Coimbra and Porto. This disclosure was made at a 3-day meeting held in Albufeira and attended by about 100 people, including doctors and specialists from the country's colleges of medicine and the Lisbon College of Pharmacy. Among the cases cited, 14 are at Lisbon's civilian hospitals, 13 at the Egas Moniz Hospital, 6 at the Santa Maria Hospital and 4 at the Estefania Hospital; others, whose number was not specified, are at hospitals in Coimbra and Porto. During a roundtable discussion at the Albufeira meeting, a group of doctors proposed the immediate establishment of a nationwide plan for the overall coordination of the country's health services aimed at controlling AIDS. According to the specialists, it will be up to the government, through the Ministry of Health, to take appropriate measures for control and coordination, as is being done in other European countries. Moreover, in addition to providing for public awareness, the physicians believe that something must be done to minimize the seriousness of the disease and alleviate the people's fear of becoming infected. [Text] [Lisbon DIARIO DE NOTICIAS in Portuguese 5 Nov 85 p 14] 8568/12859

CSO: 5400/2510

ST LUCIA

## BRIEFS

BROAD IMMUNIZATION PROGRAM--During the next five years, 62,000 of St Lucia's children will receive protection from Polio, Measles, Rubella and Mumps through a US $66,000 Rotary Foundation's Health, Hunger and Humanity (3-H) Programme grant to the Rotary Clubs of St Lucia. The grant will provide vaccine to immunize 12,000 children, ages 1-2 years, against Measles, Mumps and Rubella during the period. The grant will also provide Rubella Vaccine for 30,000 boys and girls in the age group 5-10 years. In addition, the grant will supply enough vaccine to protect 20,000 children under one year of age against Polio for the same period. The campaign against Measles, Mumps and Rubella was designed as a collaborative effort by St Lucian Rotarians and the Ministry of Health. The population of St Lucia is particularly vulnerable to Rubella epidemics, a major cause of birth defects, and the project is expected to raise immunity to the level from which ongoing protection can be provided through existing health services. The Polio vaccine will be provided as part of Rotary's international effort to help control that disease. [Excerpt] [Castries THE WEEKEND VOICE in English 26 Oct 85 p 2] /12851

CSO: 5440/028

SOUTH AFRICA

NATION COULD BE FACED WITH NEW MALARIA EPIDEMIC

Cape Town THE WEEKEND ARGUS in English 23 Nov 85 p 9

[Text]

**Weekend Argus Correspondent**

JOHANNESBURG. — South Africa could be facing a malaria epidemic as new drug-resistent strains of the disease emerge and the number of cases rockets.

After an urgent meeting convened to review the situation, health officials said that if they were to prevent people dying from the disease, they needed supplies of new drugs to deal with resistent cases.

The number of cases more than doubled from 2 130 in 1983 to 4 642 in 1984, and jumped to what health officials describe as an "ominous all-time high" of 7 099 by October 15 this year.

They predict that the figure will rocket to about 9 000 by the end of this year.

Dr Hans Küstner, director general of the Department of National Health, said the sharp increase was "out of phase" with the usual annual pattern.

**"It'll rocket"**

"Should the trend continue, there will be many infected people in the community when the rains come, thus greatly enhancing the further spread of the disease."

For decades malaria was treated with quinine and its derivatives. This gradually led to the emergence of a strain of the malaria parasite which is resistent.

**"It'll rocket"**

"In addition we have discovered an increasing number of people who are symptomless and have no fever, but who nevertheless have very high counts of parasites in their blood," Dr Küstner said.

"In the past, people sick with malaria were treated and when they got well they no longer had parasites in their blood. The situation has now changed."

This was largely due to the vast number of illegal immigrants who have swarmed into South Africa from neighbouring countries.

"Many of them have clinical malaria, but a substantial number have asymptomatic parasitaemia — they have parasties in their blood, but are not sick themselves. Mosquitoes that bite them become infected with the parasites and so the disease is spread.

"Unfortunately, because they show no symptoms, these people are 'invisible' in our malaria control programme."

A further problem was the appearance of a "new" mosquito, *Anopheles arabiensis*. In the past, the main culprit was *Anopheles gambiae*.

"The methods we used to fight the first might not work in fighting the second. The habits of the new mosquito need to be studied to give us the answer."

**"It'll rocket"**

A major problem in running the malaria control programme effectively is the actute staff shortage.

The control programme needs money urgently — for new drugs, more staff and research.

"Malaria is a complex medical problem which deserves a high priorty rating. It would be a gross mistake to behave as though it had been conquered or eradicated," Dr Küstner said.

/8309
CSO: 5400/51

SOUTH AFRICA

MAN DIES OF AIDS, ANOTHER IN HOSPITAL

Johannesburg THE STAR in English 18 Dec 85 p 1

[Text]

**CAPE TOWN — A 34-year-old man died o AIDS (Acquired Immune Deficiency Syndrome) in a Cape Town hospital on Monday and another suspected victim has been admitted.**

**Two AIDS victims have now died in Cape Town this year and 15 nationwide, according to Dr F H N Spracklen, Cape Town representative of the national Aids advisory group. Contacts of the deceased, he said, would be screened for AIDS.**

**Although Dr Spracklen was convinced that his patient had AIDS, an autopsy was performed yesterday.**

**"Most people who suffer from AIDS die from infections or tumours. The patient had none. The autopsy showed that people who suffer from AIDS can die from weight loss," Dr Spracklen said. The patient was not a good eater.**

**"The man knew he was suffering from AIDS. He knew that he was going to die and accepted it very courageously. He received some good support from his family."**

**The patient was positively tested for AIDS in April. He developed a cold in August and was admitted to hospital 10 weeks ago.**

**Dr Spracklen first saw him on October 2 when he was suffering from double pneumonia. He was extremely sick, suffered from gross weight loss, complained of a dry cough and had a severe pain in his chest.**

/9317
CSO: 5400/54

THAILAND

FEWER MALARIA CASES THIS YEAR

Bangkok THE NATION in English 1 Nov 85 p 5

[Text]

**SEVERAL border provinces are still prone to malaria but the number of malaria cases in the country in the first three quarters of this year has declined from the same period last year, a senior health official said yesterday.**

He said there were 170,000 reported malaria cases in the period compared to 220,000 last year.

Director General of the Communicable Disease Control Department, Dr Vinij Asavasena said yesterday that among the 170,000 cases, about 64,000 of them or about 36.7 per cent were reported in border areas, including 20,000 in Tak, 14,000 reported in Chanthaburi, and about 10,000 cases each in Trat, Prachinburi and Yala.

However, he said, the number of malaria victims has continued to decline since 1982 which registered 420,799 cases, compared to 306,569 in the previous year.

According to the director general, malaria outbreak in border provinces was the result of mass movement of people in the areas due to political upheavals which made normal control measures impossible.

Another problem, said Dr Vinij, was the change of behaviour of the anopheles mosquito, which transmits malaria. In the past, the anopheles entered houses at nightfall. After biting a victim, the mosquito rested upon an interior wall, where it could be killed by DDT (Dichloro Diphenyl Trichloroethane), he added.

But in recent years, the mosquito began to fly out of the doors after biting, escaping the effect of the insecticide, said the director general.

When the anopheles mosquito draws blood from a human victim, it also takes in plasmodium, the malaria-causing parasite that grows inside an infected human host.

The plasmodium matures inside the anopheles and is passed on the next victim.

Dr Vinij said his department had tried to control the widespread of the anopheles mosquitoes through preventions such as spraying of insecticides and preventing the breeding of the mosquitoes in standing water.

Moreover, the department had used "mefloquine" together with "sulfadoxine" and "pyrimethamine" to treat malaria victim instead of using only "quinine" which had recently proved ineffective in combatting malaria disease, he said.

Currently, there are altogether 450 malaria control clinic around the country. Dr Vinij said most of the clinics are located in infested areas and added that more would be set up in the current fiscal year.

/9274
CSO: 5400/4337

THAILAND

## MENINGITIS CLAIMS LIVES

Bangkok BANGKOK POST in English 10 Nov 85 p 3

[Text]

SOME 172 people, most of them children, have died this year from meningitis, a disease that causes inflammation of the membrane covering the brain and spinal cord.

The Director-General of the Communicable Disease Control Department, Dr Winich Asavasena, told the *Post* yesterday that so far this year the disease had been contracted by 1,480 people in 69 of the country's 72 provinces.

Those who did not die from the disease were often left mentally and physically handicapped and suffered speech and hearing impediments, he said.

Dr Winich said a 1983 study showed that children below four years of age were most susceptible to the disease (6.9 per 100,000) followed by children aged between five-14 (5.2 per 100,000). People aged over 60 were the least susceptible group.

The study revealed that 166 blood samples out of 659 collected from those suffering from meningitis showed strains of the "Japanese B Encephalitis" variant of the disease with the most susceptible groups being those aged between 10-24 and 25-34.

The disease is carried by mosquitoes which pick up the virus from farm animals such as pigs and then pass it on to humans, Dr Winich said. The best prevention was to raise farm animals some distance from houses and not under the houses as was common in Thailand. In addition walls of the houses should be sprayed with DDT, he said.

Dr Winich said the Communicable Disease Control Department was now experimenting with a vaccine extracted from the Japanese B Encephalitis virus in Fang and Mae Aye districts of Chiang Mai.

He added that the vaccine was expensive, however, costing 140 baht for two doses given within the space of a week. He said it will not be used countrywide but only in areas were the disease was prevalent.

Dr Winich said that the vaccine was being tested this year in four provinces in the North and Northeast while another type of vaccine was being tested in Kampang Phet Province.

/9274
CSO: 5400/4337

TRINIDAD AND TOBACO

# SHARP INCREASE REPORTED IN CASES OF GASTROENTERITIS

Port-of-Spain EXPRESS in English 28 Nov 85 p 64

[Text] **COUNTY Caroni has reported the highest incidence of gastro enteritis where up to end of last month there were 6,305 cases as compared with 4,532 for the corresponding period last year.**

During the last two weeks of that month alone, 81 cases were reported.

According to the Ministry of Health and Environment, National Surveillance Unit, reports prepared by the Public Health Authority show that more than 23,000 cases of gastro have been reported across the country so far. This number represents an increase of over 5,000 cases for the corresponding period last year.

Apart from County Caroni, high incidences of the disease were also recorded by country medical officers in St George East, St George Central and St Patrick.

With respect to influenza, over 50,000 cases have been reported for this year, and this is almost twice as much for the same period last year when 26,600 cases were reported.

A health official linked the high incidence with the present "Rambo" flu which is sweeping the country. With respect to herpes, 63 cases have been reported up to the end of October; for the corresponding period last year there were 41 cases.

The report also showed that 17 cases of malaria were reported, but noted that all these have been classified as imported through visitors entering the country. The official pointed out that more than 50 persons have already died from the dreaded AIDS (Acquired Immune Deficiency Syndrome) so far this year.

/8309
CSO: 5440/26

VIETNAM

BRIEFS

UN-AIDED VACCINATION PROGRAM--Hanoi, 11 Dec (VNA)--A press conference was jointly held here yesterday by the Vietnamese Ministry of Public Health and the UN International Children's Fund (UNICEF) to introduce a nation-wide vaccination program for children, which will begin on 15 December. The program has been proposed by UNICEF and WHO after their examination and assessment of the result of Vietnam's vaccination campaign within 4 years from 1981 to 1984, the Vietnamese Health Service with the assistance of various international organizations, especially UNICEF and the World Health Organization (WHO) gave vaccinations to over 200,000 children under one year of age in 1,813 villages and wards in 20 provinces and cities against such most common children diseases as tuberculosis, paralysis, measles, diphtheria, tetanus and whooping cough. Under the proposed plan, which will be completed before 1990 so as to draw experiences for other countries in the region, children throughout Vietnam will be vaccinated. On 5 December Chairman of the Council of Ministers Pham Van Dong gave an instruction, saying that all provinces, cities and special zone must accomplish the said program within 3 years from mid-December to 1988. [Text] [Hanoi VNA in English 1512 GMT 11 Dec 85] /9604

CSO: 5400/4330

BANGLADESH

DHAKA SEMINAR STRESSES NEED FOR RABIES CONTROL

Dhaka THE BANGLADESH OBSERVER in English 12 Nov 85 p 12

[Text] The second national seminar on "control of human and canine rabies" began in Dhaka on Sunday with a call for well-planned health education programme to ensure sucdess of rabies control scheme, reports BSS.

The five-day seminar which will rev iew the present status of the disease and suggest appropriate measures for its control was jointly sponsored by the Ministry of Health and Population Control and World Health Organization (WHO). More than 60 persons from various departments and agencies of the Government are participating in the seminar, which will have seven scientific sessions official sources said.

Held at the auditorium of the Institute of Public Health, the seminar was inaugurated by Mr. Manzoor-ul Karim Secretary, Ministry of Health, Brig M. Herdayetullah, Director General, Health Services, presided over the inaugural session, which was also addressed by WHO programme coordinator in Bangladesh Dr. Abesundare and Dr. B. Chowdhury Director, Institute of Public Health.

Mr. Karim stressed the need for collaborative efforts both at national and regional level for effective control of the disease. He said there is a need for building a better bridge of communication between the people engaged in the veterinary responsibilities and those in the public health services for obtaining desired result.

The D. G. Health Services underlined the need for integration of the rabies control programme with primary health care.

The purpose of the seminar is to remind the scientists and doctors and the people at large about the dreadful nature of the disease and suggest how all concerned persons could work together to destroy and control the disease, the sources said.

/9274
CSO: 5450/0075

COLOMBIA

## AGENCY BLAMES FOOT AND MOUTH SITUATION ON LACK OF FUNDS

Bogota EL SIGLO in Spanish 31 Aug 85 p 11

[Text] A full defense of the actions taken by ICA [the Colombian Institute of Animal Husbandry] to control the outbreak of foot and mouth disease, which is presently scourging several regions of the country was made by the Institute's general manager, Fernando Gomez Moncayo, speaking before the 8th Committee of the Senate.

The official said that had the variant virus A "Sabana 85" not been identified in a timely manner by the Institute, as it was, the outbreak would now be widespread and out of control tnroughout the country. He added that in order to meet the emergency, ICA has spent in two months, not including the value of the salaries of the employees, more than 8 million pesos; it has set up 36 control stations, 7 mobile units, with 32 veterinarians, 113 technical assistants and 7 drivers.

### Quarantine

Moreover, in line with procedures nationally and internationally recommended, the Institute took measures to control the spread of the disease, such as quarantine of affected areas, control of cattle movement, perifocal vaccination, disinfection of all cattle herds. And these measures were approved by appropriate resolutions in each one of the affected regions.

Gomez Moncayo stated emphatically that his Institute has spared neither efforts nor resources in bringing the new virus under control. We have responded to the expectations of the cattlemen to the full extent of our human and financial capabilities, he said.

### Everyone's Responsibility

On the other hand he said that the control of foot and mouth disease is not the responsibility of ICA alone, it is an effort challenging various groups in the country including the cattlemen, who should recognize their own responsibilities and cooperate with vaccination campaigns, because, in the final analysis, it is their assets which are at stake. The state cannot provide an official to force cattlemen to vaccinate their herds, he said.

Sanctions

Gomez Moncayo explained that the state has legal tools to punish cattlemen who do not vaccinate. These sanctions are delegated as required to mayoralty jurisdictions which accept the responsibility for applying them. The authority of the ICA extends only so far, he said.

No Vaccine

Speaking specifically of the vaccination program, the ICA director said that in addition to the low coverage percentages, he himself had noted in tours through Saravena, Arauca, and Yopal, that there is no vaccine for this zone. This charge was conceded by the director for Vecol, Raul Londono, who said that the provider of the vaccine does not have a refrigeration network in the country to preserve the vaccine, which is processed from imported material.

Anti Hoof and Mouth Disease Plan

He said that it is not possible to turn back and carry out campaigns such as those of 1969, since the situation in the country and in the cattleraising industry has changed considerably. Therefore the Institute worked out an eradication program for foot and mouth disease which was in due course presented to the Minister of Agriculture and to the National Committee on Foot and Mouth Disease. Although the plan was approved, the financial situation of the state affected all of the Institutes and implementation of the program was not possible. This is not by any means a secret, since copies of the plan were sent to all veterinary associations and the veterinarians themselves are thoroughly familiar with it.

Again this year and at the time when it was to have been put into effect, the same plan was submitted to the Executive Directorate of the Committee for the Fight against Foot and Mouth Disease. To date the Institute has put forward several proposals to finance it. Its cost approximates 7,000 million pesos, and its proposed duration is some 10 years.

ICA-USDA

He said that the proof that foot and mouth disease can indeed be eradicated when the necessary resources and the cooperation of cattlemen are available, is seen in the ICA-USDA [United States Department of Agriculture] program in Uraba Antioqueno, the only zone in the country declared free of the disease, and where for 10 years there has not been a single outbreak. He recalled the program to eradicate foot and mouth disease which is being carried out in the department of Atlantic and North of Bolivar as far as the Canal del Dique, and which has been a priority for the government because it is a zone with potential for exportation of beef. We are working there, he added.

Gomez Moncayo said that ICA points with pride to this example which shows how integration between Institutes, vaccination, with 100 percent coverages, adequate resources with continuity of the campaign make it possible to guarantee results such as those of that zone.

Budget Deficit

He said that in spite of the fact that the budget allocated to animal health provides a large share for the control of foot and mouth disease, it is still insuficient and is not enough to cover the minimum requirements for supporting the services which for 1985 come to $754.875 million with a deficit of $96.343 million. This deficit, he said, results from the budgetary provision and not from internal suballocation of the Institute for programs of animal health.

One budget is the one that we enacted, and another, quite different one is the one that is assigned to us.

12383
CSO: 5400/2099

COLOMBIA

## BRIEFS

FOOT AND MOUTH QUARANTINE PARTIALLY LIFTED--The Colombian Agricultural-Livestock Institute [ICA] ordered the lifting of the quarantine due to foot and mouth disease from today on in parts of Sabana de Bogota, Meta, and Magdalena Medio, and authorized the restarting of fairs and commercial expositions. The decision was made by ICA regional managers because the incidence of the disease has been more than 90 percent controlled, and successful vaccination coverage has been achieved. This decision notwithstanding, ICA reported that fairs, commercial contests, and auctions should be authorized beforeheand and be supervised by animal health officers. The quarantine will remain in effect in the Valles de Ubate (which include the municipalities of Ubate, Carmen de Carupa, Tausa, Sutatausa, Cucunuba, Lenguazaque, Guaqueta, Fuquene, Simijaca, and Soacha), and Chiquinquira and San Luis de Sema in Boyaca. The rest of the towns will enjoy the lifting of the quarantine. ICA regional office 8, located in Villavicencio, made the lifting of the quarantine extend to the entire department and allowed the controlled mobilization of cattle to other areas of the region that are not quarantined. To get authorization for commercial fairs and expositions, it is necessary that the cattle which participate in the expositions and auctions be vaccinated and that there be no foci of disease in the originating farm and neighboring places for at least two months before that. Finally, quarantine was suspended in the regions of La Dorada, Puerto Salgar, Puerto Boyaca, Samana, and La Victoria in Magdalena Medio. [Text] [Bogota EL TIEMPO in Spanish 22 Oct 85 p 2-A] 12501/9435

CSO: 5400/2013

GERMAN DEMOCRATIC REPUBLIC

# LONG-TERM PRODUCTION OF SWINE FEVER VACCINE ON RIEMS ISLAND

Jena MONATSHEFTE FUER VETERINAERMEDIZIN in German Vol 40 No 19, 1985 pp 664-669 Manuscript received 15 May 1985

[Article by Dr M. Glaner and Veterinary Advisor S. Tesner; VEB Friedrich-Loeffler-Institute, Riems Island (director: Dr of Science W. Bathke, chief veterinary advisor) in the VEB Veterinary Vaccine Combine of Dessau: "Thirty Years of Swine Fever Vaccine Production on Riems Island"]

[Text] This is a manufacturer's account of three decades of SP [swine fever] vaccine production on Riems Island. Some essential data are quoted with regard to SF itself, its pathogen and the state of swine fever control in the GDR. Methods for the production of three types of vaccine are described in greater detail. Important immunobiological data are presented on crytal-violet vaccine, lapinized SP live virus vaccine and cell-culture live virus vaccine based on the highly stable attenuated vaccination virus strain C in order to characterize and evaluate production potentials which vary from vaccine to vaccine. Particular emphasis is placed on the increasing possibilities of production to cover demands for such vaccines, and their use for insuring swine production according to plans.

For over 30 years, one of the tasks of our Institute has been the production of vaccines for active immunization against classical swine fever (SP).

Swine fever is a contagious disease of swine caused by a virus. Typically, the enzootic either has an acute course with symptoms of hemorrhagic septicemia accompanied by about 40°C fever until shortly before the lethal outcome or a subacute-chronic course with symptoms of local inflammatory processes in the digestive or respiratory system and is often accompanied by secondary infections (Fuchs 1968). As to nomenclature, the SP agent belongs to the genus Pestvirus, family Togaviridae and presents itself as a small, enveloped RNA virus with high resistance in the natural environment and high acid stability (Urbaneck 1980). Therefore, strong bases (pH 13) or heat through boiling (30 minutes) or steaming (1 hour at 78°C) are particularly suited for disinfection.

Swine is spread all over the world and is enzootic in many countries. The damages caused by SP are estimated by Mayr et al. (1984) to be higher than by any other infectious disease of swine.

All swine of the genus Sus, both domestic and wild, are susceptible to SP. If the afflicted swine survive the infections, they develop immunity for life. Immunized sows transmit antibodies in protective concentrations to the nursing piglets through the colostrum; these are degraded within 4 weeks. An effective control of SP has been possible so far only through strict veterinary-hygienic measures or/and active protective immunizations with effective vaccines.

In the GDR, the measures applicable to the control of SP are regulated by law through Directive No 2 of 16 January 1974, based on the Animal Enzootic Ordinance of 11 August 1971. The directive provides a scientifically based and state organized system for the prevention, recognition and control of SP. In this system, in addition to preventive measures against contagion within the livestocks, rapid diagnosis through immunofluorescence and national control measures, a central place is occupied by immunoprophylaxis.

Because of its central geographic location in Europe, intensive swine raiding, developing foreign trade and increasing travel and transit traffic, the introduction of SP to the GDR, which is essentially free of it, is a constant threat to raising swine according to plans. The need for more security in general practice through the provision of effective vaccines against SP was the guiding force for the development and production of highly effective vaccines on Riems Island. This need was met to a limited extent by the production of the inactivated crystal violet vaccine (KVV) in the 1950's and 1960's; it was met somewhat better already by the lapinized SP live virus vaccine (LVV) produced in the 1970's and it will be met in high measure by the Riems swine fever (RSP) vaccine based on cell culture and produced since 1980.

Production of the Inactivated KVV

Because of the absence of effective vaccination methods for eradicating the contagious disease, on the advice of our Institute, SP had been controlled exclusively by hygienic and enzootic-prophylactic measures (for example, required boiling of kitchen wastes and use of a 2 percent sodium hydroxide solution for disinfection) until the early 1950's. In the region which had no enzootic infection, eradication by getting rid of infected animals was the best method whereby rapid and complete liquidation of the infection could be achieved in the entire country (Rohrer 1960). After WW2, the very low rate of infection was largely attributed to an extremely low density in swine population. This suddenly changed in 1951 when the introduction of an extremely virulent SP strain was followed by a threatening increase in infections (Fuchs 1968). The wide spread of SP in the GDR made the need for protective immunization of the fattening stocks urgent in the midst of a build-up process. According to Rohrer (1960), only the KVV could be considered for it. The Dorset method of production was subsequently developed and the properties of the vaccine were tested experimentally and widely under field conditions. In order to rapidly satisfy the mandate from the government of the GDR that vaccines needed to combat the infection be made available, the facilities in Rottenau, established in 1945 for the production of highly immune serum, were taken over by the Friedrich-Loeffler-Institute as of 1 May 1953 (Teubner 1960). Production of the inactivated KVV was already taking place in June (Pehl 1954). However, the temporary equipment of the facility in Rottenau was not adequate for continuous production. Therefore, between 1954 and 1956, a new production

building was erected for KVV production on the continental site of the Riems Institute. As a section of "Applied Virus Research" at the time, beginning in December 1956, production of the KVV was continued for 15 years in the immediate vicinity and as a functional unit of the Institute (Teubner 1960).

The technology of KVV production was described by Fuchs (1955): Healthy young swine were experimentally infected with the selected, highly-immunizing SP virus strain "Washington" and, after a typically febrile disease, they were exsanguinated under sterile conditions and under general anaesthesia 5 days after the inoculation. The blood was defibrinated and mixed with a crystal violet-glycerol solution. Inactivation took place with occasional shaking over a 3-week incubation period at 37.5°C. The vaccine was transferred to 100 ml and 500 ml dark flasks and was stored at cold room temperatures until shipping.

Tests by the producer and the state confirmed the purity, stability and effectiveness of every sample. The methods for determining stability and effectiveness are presented in Table 1.

The only difficulty of some magnitude attended the establishment of absolute sterility of the vaccine (Fuchs 1960). Regular disinfection of the production areas, exsanguination of the swine under strictly aseptic precautions and the conscientious testing for lack of germs in the blood and on all other materials, instruments and vessels became the decisive methods toward this goal.

The criteria for stability and effectiveness, particularly important for the use of KVV in the framework of combatting infection, are presented in Table 2. It can be seen that the application of KVV was not without problems. In addition to its limited clinical compatibility, its limited effectiveness determined above all the value of the vaccination. The relatively slowly developing and relatively weak protection, even after the required repeat vaccination, could not be highly challenged. Nevertheless, applied in the GDR in the 1950's, according to plans and in a targeted manner, for prophylactic immunization in the framework of the state control measures, the large-scale fattening program and the feeling of enzootically infected areas of the GDR from SP was made possible by the use of KVV as surface vaccination (Fuchs 1968). The conception of inoculation provided for the vaccination of the fattening stock and for the preventive inoculation of the endangered swine stocks while breeding stocks had to remain unvaccinated in order to provide for a uniform immune status.

The limited value of the KVV in controlling infection became particularly clear in new outbreaks (Urbaneck 1980). Inoculation with KVV could not prevent the taking hold of SP virus in the stocks whereby infected stocks, even after three KVV vaccinations, could be continued at most only for slaughter in quarantine (Beer et al. 1978). Eradication of the agent was impossible. Moreover, there was danger of increasing the SP virus in the stock or spreading it by means of slaughter or kitchen wastes because infected and KVV-vaccinated swine excrete the SP virus without becoming ill from it. Therefore, KVV was by no means an ideal material for vaccination and it had its deficiencies. By the early 1970's, it no longer met the high requirements from an SP-vaccine

Table 1. Comparison of the Methods for Testing the Harmlessness and Effectiveness of the Riems SP Vaccine Lots on Young Swine

| Vaccine: | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Type of Testing | Test for harmlessness (U) | Test for effectiveness | Infestion control (Ko) | U | W | Ko | U | W | Ko |
| No of animals | 1 | 9 | 2 | 5 | 5 | 2 | 5 | 5 | 2 |
| Quarantine | 3 weeks | | | 1 week | | | 1 week | | |
| -1st vaccination | 10 ml | 5 ml | - | 10 ml | 2 ml | - | 10 ml | 2 ml | - |
| Amount of antigen | (2 ID) | (1 ID) | - | (5 ID) | (1/100 ID) | - | (5 ID) | (1/1000 ID) | - |
| Type of application | sc. | sc. | - | im. | im. | - | sc. | sc. | - |
| Interval (days) | (14) | | | | | | | | |
| -2d vaccination | | | | | | | | | |
| Amount of antigen | - | 5 ml | - | - | - | - | - | - | - |
| Type of application | - | sc. | - | | | | | | |
| -Stress infection: | | | | | | | | | |
| Interval (day | (35) | (21) | (35) | - | (14) | - | - | (14) | - |
| No of animals: | | | | | | | | | |
| parenteral | | 3 | 1 | - | 5 | 2 | - | 5 | 2 |
| Virus strain | Washington | | | Kozlov | | | Kozlov | | |
| Stress by contact | 1 | 6 | 1 | | - | | | - | |
| Amount in ml | - | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 |
| Virus content ($LD_{50}$) | - | $10^4$ | $10^4$ | | $10^4$ | $10^4$ | | $10^6$ | $10^6$ |
| Type of application | - | sc. | sc. | | sc. | sc. | | sc. | sc. |
| Observation period (days) | (14) | (28) | (28) | (21) | (21) | (21) | (21) | (21) | (21) |
| Minimal claims | no SP | 2 SP<br>8 protected | 2 SP | no SP<br>all healthy | 1 SP<br>4 protected | 1 SP<br>died | no SP<br>all healthy | 1 SP<br>4 protected | 1 SP<br>died |
| Total duration without quarantine | - | 9 weeks | | 3 weeks | 5 weeks | | 3 weeks | | 5 weeks |
| Total duration with quarantine | - | 12 weeks | | 4 weeks | 6 weeks | | 4 weeks | | 6 weeks |

which had to be established in view of the high concentration of swine stocks at large-scale livestock production facilities in order to provide for the continuous security of production according to plans.

Production of Lapinized SP-LVV

It was pointed out in 1971 by Urbaneck that the live vaccines against SP are not uniform. Since the first attenuation of the SP-virus in rabbits (Korprowski et al. 1946; Baker 1946) and later in various cell systems, vaccine-virus strains with very different properties have arisen. To be suited for field application, a distinction must be made among lapinized SP-virus strains with an inadequate degree of modification and lapinized SP-virus strains with an adequate degree of modification, and also cell culture-adapted SP-virus strains. Adequately modified and, therefore, particularly suitable for SP-LVV production were strains derived from the Chinese vaccine-virus strain "C" or "K" (Urbaneck 1980). This SP virus was adapted (lapinized) by several hundred passages through the rabbit whereby it lost its pathogenicity for swine without losing its excellent immunizing properties (Kojnok et al. 1980). This strain "C" had also provided the production strain for the lapinized SP-LVV "Riems" produced on Riems Island between 1971 and 1979 (Wittmann et al. 1972).

For the vaccine production, specially raised young rabbits weighing about 2 to 2.5 kg were infected by an intravenous administration of virus. After having developed the typical rise in temperature from viremia, the rabbits were killed, their spleen and lymph nodes were removed under sterile conditions and, together with the blood serum, they were processed to yield a lyophilized vaccine. The vaccine was offered in glass ampoules. After dissolving the lyophilisate and producing the dilution to be used, in a 1 : 100 ratio of suspension and solvent, the vaccine was ready to be used. A single inoculation (2 ml intramuscularly) was mostly accepted without a reaction.

The test criteria (Table 1) vouch for high effectiveness, rapid development of vaccine protection within 3 to 5 days and long duration (Table 2). The change-over to SP-LVV production has set free the production capacities at the Friedrich-Loeffler-Institute for the production of other virus vaccines.

With the start of using the SP-LVV "Riems" in 1972, new roads of immune prophylaxis against SP were entered in the GDR (Beer et al. 1973). It was shown in the subsequent years that the introduction of SP-LVV in the GDR was epizootiologically harmless. There was no development of virus carriers and no transmission of the vaccine virus under field conditions (Beer et al. 1978). The fears of Fuchs (1968) and of Mahnel and Mays (1974) were thereby refuted in practice. The introduction of such a highly effective SP-live virus vaccine is possible in the GDR, a country that is practically free of SP and only rarely has sporadic cases of infection because the lapinized SP-virus strain C presents an epizootiologically harmless, stable, attenuated virus strain; it is useful because this vaccine proved to be superior to KVV in effectiveness and clinical tolerance, and it is necessary because the sacrifice of large swine stocks cannot be advocated on economical grounds. Additionally, the economic factors of vaccine production, storage, handling and application favor the SP-LVV (Beer et al. 1978).

Table 2. Comparison of Selected Criteria of the KVV, SP-LVV and RSP Vaccines

| | KVV | SP-LVV | RSP Vaccine |
|---|---|---|---|
| - Criteria of harmlessness | | | |
| Clinical manifestations in sows and piglets | + | - | - |
| Endangering the pregnancy | + | - | - |
| Febrile reaction | + | - | - |
| Leukopenia | + | - | - |
| - Number of inoculations | 2 | 1 | 1 |
| - Criteria of effectiveness | | | |
| Protective effect-beginning | 14 to 21 days p.v. | 4 to 5 days p.v. | 3 to 5 days p.v. |
| -duration | 6 to 8 months | longer than 1 year | longer than 1 1/2 year |
| -degree | 80 percent | 90 to 100 percent | 100 percent |
| Resistance to challenge | slight | high | very high |
| Protective units/vaccination dose | 1 | 50 to 100 | 1000 |
| Clinical reaction after challenge infection | + | - | - |
| Excretion and persistence of the challenge virus | + | - | - |
| - Possible uses | prophylactic | prophylactic & metaphylactic | prophylactic and metaphylactic |
| Use in combined vaccination | - | + | + |
| Use in aerogenous immunization | - | ± | + |
| - Economic criteria | | | |
| Use of production animals for vaccine production (for Mio ID) | about 40,000 swine per year and 4 Mio ID | about 10,000 rabbits per year and 10 Mio ID | about 20 pregnant sows per year and 10 Mio ID |
| Labor force in the production process | 43 workers | 14 workers | 7 workers |
| Annual imports | 92,000 foreign marks | none | none |
| Transportation and storage | | 1/100 of the crystal violet vaccine | 1/100 of the crystal violet vaccine |
| Aerogenous immunization | not possible | biologically possible, but not economical | effectively possible |

The proven conception of prophylactic use in fattening stocks was retained whereby the size of the stocks to receive preventive immunization was increased to 500 animals. With the introduction of SP-LVV, the number of SP outbreaks dropped in the early 1970's and the epizootiological situation became stabilized. Because of the high level of protection achieved with the vaccine, the virus introduced through sporadic SP infections in the vaccinated stocks could no longer take hold, multiply and be excreted, or it also could not be spread through the meat. The SP-vaccination was transferred to the fattening installations. In the large majority of the cases, it was done in combination with the RL-live vaccine "Dessau." In exceptional situations, prophylactic surface vaccinations were necessary for warding off particular threats in which cases swine of all age groups were vaccinated without damage (Tesmer et al. 1973). The use of SP-LVV "Riems" for controlling an existing outbreak of infection became possible (Urbaneck et al. 1973) and, by scrupulously following a scientifically established procedure in the field, proved to be very effective (Beer et al. 1978).

Compared with the inactivated vaccines, the lapinized SP-vaccine had many advantages. However, it also had disadvantages which led to the development of a further advanced live vaccine, based on cell culture, at the end of the 1970's. Tying vaccine production to the raising of broiler rabbits on an industrial scale, through a special enterprise, was very problematic. Although, compared with KVV, the antigen content of the vaccine was high, it was, nevertheless, it was not sufficient to make the experimentally possible aerogenous immunization economically justified in practice (Kaden and Glaner 1982).

Production of the RSP-Vaccine in Cell Culture

The development and production of an immunobiologically effective and rationally producible SP-vaccine on a cell culture basis was the first method to permit the realization of aerogenous immunization in field practice. With the RSP-vaccine having been produced since 1980, we now have available such a valuable cell culture vaccine based on the Chinese lapinized SP-virus strain "C" or "K." Through targeted adaptation studies by a Soviet scientist, this lapinized virus was adapted to the in-vitro cultivated fetal swine kidney cell (Miscenko 1979, 1972). Targeted developmental studies at the Friedrich-Loeffler-Institute were again required before we succeeded growing, in such cell cultures, high concentrations of an SP-virus without cytopathic manifestations and without loss of the favorable properties of the strain.

Compared with the lapinized vaccine, the cell culture vaccine has many immunobiological and national economic advantages. However, they can become operative only if the producer is in a situation to meet the necessary high production demands. The main advantages and the higher production demands are compared in Table 3. The evaluation criteria are listed in Table 1 and the criteria for harmlessness and effectiveness are found in Table 2.

The RSP-vaccine is being produced through the selection of healthy pregnant sows from livestock production enterprises which are contracted for this and the animals are sacrificed as tissue donors. Fetal swine kidney cell cultures in cylindrical culture vessels are produced from the kidneys of the unborn

Table 3. Comparing Essential Advantages With Higher Production Requirements in Changing Over From the Lapinized SP-LVV to the Cell Culture-Based RSP Vaccine

| Advantages: | Higher production requirements |
|---|---|
| Immunobiological advantages: | Expansion of material-technical capacities |
| - at least 10-fold higher antigen content possible<br>* greater challenge to vaccine protection and stabilization of aerogenous immunization<br>- changing to fetal cell culture possible<br>* reduced danger of foreign contaminants<br>* and reduction of added antibiotics thereby<br>* improved possibility to combine with bacterial live vaccines<br>- reducing the solid material fraction of the vaccine<br>* increased tolerance and solubility | - for the mass cultivation of cells and viruses (rolling culture process)<br>- dust-free work places at all handling stations (laminar flow chambers)<br>- supply of the highest quality culture media for cell and virus cultivation<br>- obtaining or supplying highly potent cattle and horse sera<br>- construction of diverse cooling facilities in the +4° to -196° temperature range<br>- isolation pens for determining the value of SP protection in the framework of the production controls |
| Economic advantages: | Increased demands on the labor force |
| - elimination of rabbits as the donor animals<br>- economical production of highly potent vaccines for aerogenous immunization<br>- more rapid solubility saves work time during vaccination<br>- increased work productivity at the producer<br>- decreased production costs<br>- flexible expansion of production when needed | - increased demands on the level of quality lead to<br>* a doubling of the specialized work for H and F cadres<br>* relieving the subsidiary forces by laboratory technicians<br>* prolonging the training period<br>- shifting the center of work from quantitative to qualitative criteria<br>- increased use of testing methods as production controls, for example, to test for sterility, absence of foreign viruses or serological purity |

swine fetuses. In these cell cultures, the lapinized, cell-culture-adapted Sp-vaccine strain is cultivated and harvested under standardized conditions and is then stored deep frozen until withdrawn for vaccine. Various methods are used to test the production virus for the absence of contamination by bacteria or fungi, the absence of foreign viruses, virus content and protective value. After addition of a special dry protective medium and of a lyophilized dry skim milk preparation, the vaccine is filled, according to the production plan, into glass ampoules to hold 10, 50 or 250 immunization doses. The vaccine is gently lyophilized and is stored at cold room temperatures under lock and key by the Technical Pharmaceutical Control Organization until the conclusion of state testing and its release through the State Veterinary Medical Testing Institute in Berlin. The vaccine is transported quarterly by the Institute's own vehicles to the distribution centers. The required amount of suspension fluid (SM), as the sole additive to the RSP-vaccine, is sent along. Vaccine slated for aerogenous vaccination has to be specially requested. Vaccine charges with extremely high antien content are used for the latter.

Before releasing it for production, the RSP-vaccine was tested in the laboratory for important immunobiological properties and was involved in clinical testing under field conditions involving over 10,000 swine (Glaner et al. 1984). Administration of the RSP-vaccine is tolerated without reaction by swine of any age group. There is no febrile reaction. The general condition and fodder intake of the animals remains unchanged even after high doses of the virus. Uncontrolled excretion of the vaccine virus, which could be the starting point of undesirable viral passages, does not take place. Young swine immunized with the RSP-vaccine do not excrete the field virus after their experimental challenge infection so that the infection chain is broken by the vaccinated animals. With these criteria for harmlessness, the vaccine fulfills the highest scientific-technical requirements for lapinized SP-LVV established by Urbaneck (1971). With respect to the effectiveness criteria, the cell culture vaccine exceeds those of the lapinized vaccine already at the onset of immunity reduced after parenteral immunization against a contact challenge. Already the day following vaccination, two-thirds of the vaccinated animals withstand infection and all of the swine are protected on the second day after vaccination (p.v.).

With both LVV's, protection against a subcutaneous infection begins on day 3 and is stable on day 5. After aerogenous immunization, protection against infection develops by day 5 p.v. and it securely protects the young swine from infection from day 6 on. Assuming day 4 as the expected beginning of protection against contact infection both after subcutaneous vaccination and aerogenous immunization, when a threat of infection is present or in an infected stock, parenteral vaccination is given exclusively in order to minimize the industrial losses.

A single immunization (subcutaneous or aerogenous) of young fattening pigs leads to lifelong immunity. After a 7 to 9 month observation period, this vaccine protection could still withstand severe challenge. In the experiment, 99 percent of the young pigs were found to be immune against SP after parenteral vaccination with 1 ID. They did not react to a test infection with increased temperature. Added to the very high effectiveness of this vaccine is its suitability for combined use with erysipelas (RL) and other live vaccines.

Very high immunity is reached also with aerogenous application of the RSP vaccine. According to the findings of Kaden and Glaner (1982), a 1 ID dose of RSP applied per cubic centimeter of space is sufficient for the secure aerogenous immunization of young swine under field conditions. This dose was used for a combined, synchronous, aerogenous immunization against SP and RL in a livestock immunization lock (Kaden and Beer 1982). This very economical use of the vaccine through aerogenous immunization is based on the high antigen content of every vaccine dose. According to the O.I.E. recommendation (1976), every dose of SP-LVV should contain at least 50 protective doses ($SD_{50}$). In the case of strain "C," 100 $SD_{50}$ is demanded by Leuner and Stroble (1977) and also by Desmecht et al. (1977).

It was reported by Urbaneck (1971) that, although there are differences, the average protective value of cell culture vaccines (1,000 to 40,000 $SD_{50}$) is higher than of the lapinized LVV. This high antigen content must be achieved under the production conditions in order to be effective for the user. At Riems Island, the virus suspension is quantitatively tested already during the production of the vaccine and the protective value of the RSP vaccine is set so that a broadly uniform and high antigen content is guaranteed. Through effectiveness testing using one-thousandth of the application concentration in most of the production lots, testing conditions guarantee a minimum content of 2,000 $SD_{50}$/ID whereby follow up tests of several lots gave values of 6,000 and 30,000 $SD_{50}$. We consider this high immunobiological valency of SP vaccines a prerequisite for their secure application also in aerogenous immunization. Meanwhile, through its application over a 4 year period, The Riems cell culture-based SP vaccine has proved itself in systematic prevention and control of SP. Through maintaining the same control conceptions as with the lapinized SP-LVV, the absence of SP from our swine stocks could be assured. This is a particular achievement in view of the strong infection pressure from abroad and the infection of a limited population of wild swine during this period. The modern method for producing RSP vaccine is particularly directed toward using all qualitative effectiveness factors.

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GERMAN DEMOCRATIC REPUBLIC

# NEW METHOD FOR IMMUNIZING HOGS AGAINST SWINE FEVER

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[Article by V. Kaden, P. Heller and W. Dubberke, VEB Friedrich-Loeffler Institute, Riems Island (director: Chief Veterinary Advisor Professor Dr of Sciences W. Bathke) in the VEB Veterinary Vaccine Combine of Dessau, State Veterinary Joint Practice, Wolgast (head: Dr H.G. Goewe) and VEB Swine Fattening, Wolgast (director: Graduate Agronomist W. Dubberke): "Effectiveness of the Method of Synchronous Aerogenous Immunization of Swine against Swine Fever and Erysipelas in a Livestock Immunization Dock--Analysis of the Scientific-Technical Level"]

[Text] After several years of synchronous aerogenous immunization of swine against swine fever (SP) and erysipelas (RL) in a livestock immunization dock, an appraisal of the method was undertaken by its first user in the GDR. The results obtained so far are likely to underline the effectiveness of aerogenous immunization at other livestock production units with high animal concentration. The aerogenous immunization of young swine against SP and RL in a livestock immunization dock resulted in a considerable improvement in the working and living conditions of all personnel involved in the vaccination. It helped to reduce the time consumed and to increase work productivity by about 500 percent for the first user and by more than 300 percent at the other livestock production units. Vaccine costs and vaccination fees dropped by 0.61 mark per immunized pig as a result of the new approach. The initial investment costs for equipment were paid off within three and a half months.

The method of synchronous aerogenous immunization of swine against SP and RL in a livestock immunization dock (Figure 1) was registered by the state in 1982 after successful preclinical and clinical testing (Kaden and Beer 1982; Kaden and Heller 1982; Kaden et al. 1982). Since that time, it has been used routinely by a number of livestock production enterprises. The broad field application of this immunization procedure is determined essentially by its advantages and particularly by the economic benefits to livestock producers and the veterinary system.

Compared with parenteral vaccination, the aerogenous immunization method has some important advantages (Table 1). These advantages are present to a greater or lesser extent depending on the pathogenesis and immunogenesis of the

Table 1. Advantages of the Aerogenous Immunization

| Methodological advantages | (Immuno)biological advantages |
|---|---|
| 1. Simultaneous immunization of large groups of animals | Effective immunization against local inefections involving the respiratory or digestive systems and also against systemic infectious diseases |
| 2. Reaching every animal with the immunization (no gaps in the immunization) | More rapid and intensive build up of local immunity (imitating the natural path of infection, immunity develops at the gate of entry for most agents |
| 3. Absence of heavy physical labor | Induction of specific and paraspecific immune mechanisms |
| 4. Lowering the effective work time (increased work productivity) | Avoidance or lessening of vaccination complications such as iatrogenic infections |
| 5. Saving on auxiliary workers | Absence of homologous and heterologous provocations |
| 6. Improving the working and living condition of persons involved with the immunization | |
| 7. Lowering the stress on the immunized animals | |

Table 2. Selected Production Characteristics

| | |
|---|---|
| Gross production | 74,268 dt |
| Net production per animal of the average stock | 194 kg |
| Fattening days per year | 9,120,985 |
| Average mass per young swine when put in stalls | 35.1 kg |
| Average weight gain per stabled animal | 74 kg |
| Costs of veterinary services and medications per dt net production | 5.25 M |
| Number of enterprises supplying piglets | 7 |

infectious disease against which immunization is used, the practical application of the needle-free immunization procedure and also on the conditions of industrial production. Some of the advantages of aerogenous immunization listed, such as better toleration and rapid build-up of immunity, can also be achieved with the parenteral administration of live vaccines (Urbaneck et al. 1983). This was determined both with the SP live virus vaccine "Riems" produced in the 1970's, (Wittmann et al. 1972) and the SP vaccine currently on the market (Kaden and Glaner 1982; Kaden 1983; Glaner et al. 1984).

It is often not simple to evaluate the economic effectiveness of veterinary medical measures and procedures (Schulze 1975; Nikitin and Struwe 1982). Frequently, the characteristics which must be evaluated first do not always correspond to the characteristics used for the economic evaluation of the production process. It is not possible to calculate the effectiveness of the aerogenous immunization procedure against SP and RL in terms of the damages caused by the method (Nikitin and Struwe 1982) and of the criteria for eocnomic benefits listed by Kachel (1981) because, with the parenteral vaccination of swine against SP and RL, there is an immunobiologically very effective immunization method. In principle there are no better rates of protection to be achieved by using aerogenous immunization against the two infectious diseases; this is perceived by the fact that every animal is involved in aerogenous immunization while with parenteral vaccination there is always a possibility that individual animals fail to get the vaccine. Such cases are rare, however, and they are without significance with respect to livestock immunity. Although direct damage (circulatory collapse, local abscess) is possible when a syringe is used for vaccination, it is in general not considered part of the vaccination against SP and RL at the livestock production facilities. Therefore, a supplementary evaluation of cases involving such damage would be difficult.

For the aerogenous method of immunization against SP and RL, expense characteristics such as the cost of the vaccine per animal, reduction in work time or cost of the procedure per 1,000 immunized swine were found to have the greatest significance (Kaden 1969). In evaluating the aerogenous method of immunization, indirect and direct parameters of usefulness, such as work and living conditions, increase in live weight, and beginning and duration of the protective effect must also be included.

Starting with the scientific-technical level of the aerogenous method of immunization against SP and RL in a livestock immunization dock, the first user of the method in the GDR undertook an analysis of its effectiveness including the above mentioned criteria.

Data From the VEG Swine Fattening W.

The VEG Swine Fattening W. consists of a swine fattening installation for 25,000 animals, a group-raising cage installation for 1,360 animals and, located outside of this complex, 4 old fattening areas. The swine fattening installation has been in fully productive operation since 1978. In the 1982 production year, the production rates listed in Table 2 were achieved.

The aerogenous immunization was initially carried out in the livestock receiving dock of both stages of the 25,000 swine fattening installation. After construction of the 1,360-animal group-raising cage installation, its use preceding that of the swine fattening facility, immunization against SP and RL was carried out in the livestock immunization dock of the cage installation at the time of the transfer of the young swine to the pens. The evaluation of aerogenous immunization to be presented was done on the basis of the experiences with this procedural solution.

## Work and Living Conditions

The work and living conditions of the workers involved with the vaccination are improved with the aerogenous method of immunization against SP and RL. Workers of the veterinary system and of the farm are spared from some heavy manual labor. The danger of accidents associated with the previous vaccination method is simultaneously reduced. Furthermore, because of the absence of intensive contact with the animals during the vaccination process, the personnel carrying out the vaccination does not get soiled with animal excrements. The aerogenous method of immunization has an additional, significant advantage insofar as the respiratory passages are no longer filled with the organic particles and microorganisms in the dust which had been kicked up in the bay in the course of individual vaccinations. As shown by many years of medical research, aerogenous immunization itself does not present any threat to human health.

Nevertheless, the regulations involving work and health protection must be followed when using aerogenous immunization. Above all there should be no adjustments made on the compressor and aerosol equipment while they are in operation, protective breathing masks or a mask covering nose and mouth should be worn when the livestock immunization dock has to be entered during aerogenous immunization and during the emptying or ventilation of the air in the livestock immunization dock before the animals are driven out which can then be done without protective breathing masks.

## Work Expenditure

Compared with parenteral vaccination, the aerogenous immunization against SP and RL in the livestock immunization dock results in a decrease in work expenditure by 591 AKh during each production year in the VEG Swine Fattening W. The data on the analysis of work times for both methods of application are in Table 3. They indicate that, with the new, needleless immunization method, only about 20 percent of the work time needs to be spent. When the saving in work time is evaluated separately for the veterinary specialists and the agricultural workers helping with the immunization, a work productivity increase by 450 and 580 percent, respectively, is obtained.

In estimating the work-time expenditures for both procedures, all the measures required for preparation and finishing up are represented including the vaccination and travel times. The time between the individual immunizations is not considered, in the comparison with aerogenous immunization in the livestock immunization docks, because this time can be used for other targeted work such as visits to stalls, prophylactic and curative treatment of individual animals, documentation, etc.

Considering the average work time expenditures for parenteral vaccination in 4 fattening installations of the GDR, as determined by Struwe and Bohl (1981), and our experiences with aerogenous immunization, a saving in work time amounting to 29 AKmin per each 100 swine to be immunized can be expected when the latter immunization method is used in livestock production installations with high animal concentration such as the swine fattening installations containing 6,000, 12,480 and 25,000 animals. This represents a 340 percent increase

Table 3. Comparative Presentation of the Procedural Costs of Synchronous Aerogenous Immunization Against SP and RL in a Livestock Immunizing Dock and of Complex Parenteral Immunization Against SP and RL

| Parameter | Unit | Synchronous aerogenous immunization | Parenteral immunization |
|---|---|---|---|
| Investment costs for the application technology | M | 12,643,00 | 295,00 |
| Annual time of application | h | 22 | 401 |
| Write off rate | % | 10 | 50 |
| Maintenance rate | % | 10 | 20 |
| Attendance and care costs | h/a | 13 | 13 |
| Labor costs, total | Akh | 141 | 708 |
| Water consumption | $m^3/a$ | 3.6 | 10.4 |
| Energy needs | KWh/3a | 220 | 46.8 |
| Cost of water usage | M/m | 1.15 | 1.15 |
| Cost of electrical work | M/KWh | 0.04 | 0.04 |
| Vaccine costs | M/1000 animals | 1,852,60 | 2,237,50 |
| Vaccination fees | M/1000 animals | 200,00 | 423,30 |
| Wage costs per worker | | | |
| Veterinary system | M/a | 17,680,00 | 17,680,00 |
| Agriculture | | 364,00 | 2,099,50 |
| Labor force needed | number | 1 | 2 |
| Rough calculation of costs | | | |
| Write off costs | M/a | 1,264,30 | 147,50 |
| Maintenance costs | M/a | 451,60 | 59,00 |
| Energy costs | M/a | 8,80 | 1,87 |
| Water costs | M/a | 4,14 | 11,96 |
| Vaccine costs and fees | M/a | 143,682,00 | 186,291,00 |
| Costs of machine work | M/a | 145,410,84 | 186,511,33 |
| Costs of human labor | M/a | 1,034,89 | 5,138,25 |
| Costs of partial procedure | M/a | 146,455,73 | 191,649,58 |
| Costs of the procedure in terms of the immunized swine | M/1000 swine | 2,092,08 | 2,737,85 |

in work productivity. The work productivity will be even greater at installations where more than one agricultural worker is supporting the employees of the veterinary system in the customary vaccination process.

According to Ohl (private communication), aerogenous immunization against SP and RL in the livestock immunization docks of the VEG Fattening Combine Wi, Industrial Section S, leads to a saving of work time in the livestock production installation which converts to 0.02 marks in savings for every immunized

Table 4. Comparative Presentation of the More Important Immunobiological and Methodological Parameters of Aerogenous Immunization, and Parenteral Vaccination Against SP and RL

| Parameter | Synchronous aerogenous immunization | Parenteral vaccination |
|---|---|---|
| **Immunobiological criteria** | | |
| Protective effect (young swine) | | |
| Beginning (days p.v.) | 3.-6. | 3.-6. |
| Duration | life long | life long |
| Degree | | |
| SP | 95 | 95 |
| RL | 80 | 80 |
| Clinical reaction p.v. | - | - |
| Excretion of the SP-vaccine virus | - | - |
| Excretion of the SP-challenge virus | - | - |
| Immunization at the gate of entry | + | - |
| **Methodological criteria** | | |
| Physical labor | - | + |
| Work conditions | | |
| Effective work time | | |
| Gaps in the vaccination | - | ± |
| Stress on the immunized animals | | |

swine. According to our analyses (Table 3), wage costs amounting to 1,735 marks can be saved each year by aerogenous immunization in the VEG W. Calculated per individual animal, this also amounts to 0.02 marks.

Vaccine Costs and Vaccination Fees

Vaccine costs and vaccination fees for the agricultural enterprise are considerably lowered through aerogenous immunization against SP and RL in a livestock immunization dock (Table 3). With the release of an average of 1,340 young swine per week, 42,505 marks in vaccination costs and fees are saved each production year through aerogenous immunization in the VEG Swine Fattening W. amounting to 0.61 mark per immunized animal. This favorable result had been achieved although the livestock immunization dock does not correspond to the optimal animal-space volume ratio of 0.65 $m^3$ space volume per young swine. Should aerogenous immunization against SP and RL be carried out in livestock production installations with nearly optimal animal-space volume ratio, savings in vaccination costs and fees amounting to about 0.90 to 1.00 marks per swine could be made.

Stress of the Swine Through the Vaccination Process

When inoculated with a syringe, insertion of the needle often produces pain reactions in the swine and attempted fleeing in the bay. Thereby there is an increased risk of injury to the swine and a greater danger of circulatory collapse, on the one hand. On the other hand, this reaction by the swine produces a not insignificant restlessness in the entire pen which can lead to lowered productivity. With aerogenous immunization, no restlessness of the young swine arises. The majority of the animals is resting during the immunization process. Infections caused by dirt, which cannot be avoided with syringe vaccination and in part lead to abscesses at the site of the inoculation, and also any possible iatrogenic infections are also absent with aerogenous immunization.

Compared with the parenterally vaccinated swine, we could observe better development of the aerogenously immunized animals within the next few days after the aerogenous immunization without being able to show any statistically significant differences in body weight by the end of the fattening period.

According to Burcev et al (1977) and Kanskin and Kulkov (1978), swine aerogenously immunized against SP gain more weight during the first 8 days after immunization (by a total of 0.68 kg live weight per animal) than the parenterally vaccinated ones. Nurnberg (1973) even found a loss of 1.1 kg live weight after parenteral vaccination against SP with crystal violet within 14 days after the vaccination.

Some weight measurements under laboratory conditions (Kaden 1983) confirm the better overall weight gain during the first 8 days after aerogenous immunization. Both 5 and 8 days after vaccination, the average weight increases were significantly better than in the parenteral control group (t-test, $p < 0.05$). In all, by the eighth day p.v., the piglets receiving aerogenous immunization showed a higher gain by 0.618 kg than those receiving parenteral immunization.

In the VEG Fattening Combine Wi., Industrial Section S., stress-induced reductions in weight gain amounting to 3.992 kg per animal and higher losses by 0.3 percent were found with the traditional method of vaccination (Ohl, personal communication). The stress-induced loss in live weight is valued by Ohl in terms of one day of fattening in the case of aerogenous immunization, so that, in this fattening installation, an increased value amounting to about 19.90 marks per fattening pig is realized. Should this result be also confirmed at other livestock production installations, it would have an enormous national economic significance.

In Table 3 additional parameters of the scientific-technical level of the two application methods are compared. Although, because of the higher purchase price of the application technology (livestock immunization dock, compressor, aerosol equipment) for the aerogenous immunization procedure, there are also higher write-off and maintenance costs, the total costs of the procedure are more favorable than of the traditional vaccination method. They amount to 2,092.08 marks (parenteral 2,737.85 marks) per 1,000 immunized swine. Thus the costs of aerogenous immunization against SP and RL in the livestock immunization dock are 23 percent lower than of needle vaccination. Starting with the costs of the initial material-technical equipment for the aerogenous immunization method, a reflux coefficient of 35 and a reflux period of 0.29

are obtained. It means that, under the given immunization conditions, the primary expense is returned after 3.5 months of using the procedure.

In the USSR, similar high effectiveness was found with aerogenous immunization against SP in the stall (anonymous 1975; Burcev et al. 1977). The Soviet aerogenous immunization method produces 7 to 8-fold increases in work productivity at a saving of 0.74 ruble per swine. The evaluation of effectiveness should also include the improved gain in live weight.

In addition to the directly effective procedural-technical and economic aspects, the immunobiological side is also part of the scientific-technical level of an immunization method. The decisive immunological criteria such as beginning, duration and level of protection are the same with both methods of application (Table 4). Nevertheless, aerogenous immunization has an advantage in piglets which still have a certain passive immunity through colostral antibodies (Kaden 1983).

The method of synchronous aerogenous immunization of swine against SP and RL in a livestock immunization dock has proven itself under field conditions. It represents a well functioning and highly effective needleless method of immunization. The orientation toward using livestock immunization docks for the immunization has advantages from the aspect of procedural safety, rational use of the vaccine material and also work and health protection.

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MOZAMBIQUE

## BRIEFS

RABIES CAMPAIGN ENDS--The drive against rabies in cats and dogs ended Staurday afternoon in Urban District No 5 as part of an effort which had been underway in that section of the country's capital for several days. The drive, which was conducted through the system of permanent stations, has already covered all of the district's boroughs, following a promotion campaign among the population with a view to securing its participation in the vaccination drive. These stations were established in the course of the vaccination campaign against rabies and "Newcastle" disease which had been in progress since last June on a house-to-house basis in all of the residential areas of the country's capital. According to information released by a source at the Veterinary Services of the Provincial Agriculture Directorate of Maputo, the efforts of the political organizations in the boroughs resulted in wide popular participation in this drive. Our source said, on the other hand, that this is not the first time that the Provincial Agriculture Directorate in Maputo launched a vaccination drive for animals against rabies; this year, he said, the process is different since "we held meetings with the secretaries of the mobilizing groups in which we explained the dangers of this disease as well as its symptoms." In the meantime, the vaccination drive for dogs and cats against rabies will be continued tomorrow in Urban District 4 in the city of Maputo where the animals owned by the residents of the Borough of the People's Forces live. /Text/ /Maputo NOTICIAS in Portuguese 16 Nov 85 p 2/ 5058

RAT PLAGUE THREATENS CROPS--A rat plague has caused serious consequences during the last farming season in the district of Chemba, in Sofala, and it is threatening the production of millet, mapira, and mexoeira, primarily, for the 1985-1986 agricultural harvest. Hippopotamus and wild boars are also causing tremendous damage in completely destroying entire plantations. This problem is becoming more serious because the district at this time faces serious problems arising from the lack of seeds to be used in planting in the 4,000 hectares of cultivable land which had been earmarked for planting and which belonged to the private, cooperative, state, and family sectors. The rat plague, the devastation caused by hippopotamus and wild boars, and the lack of seeds are considered to be the major agricultural problems in the district of Chemba. This difficulty could make it impossible to attain the target that was set for the next harvest season which is about 4,000 hectares for the production of various cereal crops. Party and government officials are studying ways of preventing the rats, hippopotamus, and wild boars from devastating the plantations and farms. The difficulties in procuring seeds, which the peasants of Chemba are facing, are due to the low output during the last farming season which, in turn, was the result of the flooding of the Zambeze River. /Text/ /Maputo NOTICIAS in Portuguese 31 Oct 85 p 8/ 5058

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JPRS-TEP-86-001
17 January 1986

ZIMBABWE

EXPERT URGES DEVELOPMENT OF TSETSE COUNTRY

Harare THE HERALD in English 11 Nov 85 p 5

/Article: "Develop Tsetse Country--Expert"/

/Text/ People living in tsetse-infested areas of northern Zimbabwe need development desperately and in these fragile environments wildlife is a very valuable option to livestock, says a senior Government ecologist.

The chief ecologist in the Department of National Parks and Wildlife Management, Dr David Cumming, was speaking in Harare last week during a special debate on tsetse during the international conference on implementing a national conservation strategy for Zimbabwe.

He said no one was suggested that tsetse should not be eliminated but debate seemed to be centered on how the land should be used after tsetse elimination. No one was looking at how to use it now.

"I don't believe that these areas should be left alone. We should look at development, the people need it desperately."

And the best uses, giving the people the best standard of living, should involve game.

Tsetse infested two main areas of Zimbabwe, the debate was told.

The Department of Veterinary Services was concentrating its own resources in the Sebungwe area south of Lake Kariba which could serve as a natural frontier against reinfestation.

Clearing

The other area was the northeast and here an international programme would be needed if the tsetse was to be driven back to natural frontiers. The European Economic Community was giving support for the first phase of the programme which involved clearing 12,000 square kilometres in Zimbabwe and 8,000 $km^2$ in Zambia.

The Director of Veterinary Services, Dr Jimmy Thompson, told the debate that the policy of his department was the elimination of the tsetse fly which would prevent the expensive process of guarding against reinfestation which could affect half of Zimbabwe, all the land below 900m in altitude.

Without control the tsetse, advancing 10 km to 20 km a year could infest the rich agricultural areas of Kadoma and Kwekwe.

Dr Thompson and the assistant director in charge of tsetse control, Mr Brian Hursey, both said land use planning was vital and should be ready for areas cleared of the fly, otherwise there would be unplanned movement of livestock and people.

A team of consultants from the Food and Agricultural Organisation was in Zimbabwe looking at how the area could be used, said Dr Thompson.

The team leader, Mr Martin Brunt of Britain, said provisional soil studies of the northeast by the Department of Research and Specialist Services and a wildlife study by the Department of National Parks and Wildlife Management provided a basis for further studies.

A member of the team said it appeared that there was land suitable for cotton in the northeast, east of the manyame River. He said that resources were already being exploited, if only by poachers, and studies had shown that with safari operations and other use of wildlife that part of the country could produce an income of $12 a hectare a year from wildlife compared with $4 from cattle. But it was vital that the economic benefit went to the people there.

The problem of getting the wealth of an area to the people who lived there was touched upon by Dr Norman Reynolds, one of the workshop chairmen.

Dr Reynolds said there was internal colonisation of the Sebungwe area with many people moving in to take advantage of the recent successes of the tsetse operation. There was need for the people actually living in the area to control the resources and to be consulted over their use.

In his initial presentation of the Sebungwe area and the problems it faced, Dr Cumming said the area faced the highest erosion risk in the country. There had been meetings in the past with representatives from ministries to draw up a land use plan but the last such meeting was held in 1982.

The meeting was told that the EEC programme would use the insecticide endosulphan, a chemical used in Europe at dosages far higher than those to be used in the Zambezi Valley, to spray food crops. This chemical did not accumulate in food chains and was not persistant. Although insects and fish would die in the spraying operation, the non-tsetse populations would quickly recover.

/12851
CSO: 5400/52

EEC TO GIVE LOAN TO WIPE OUT TSETSE

Minister Signs Agreement

Harare THE HERALD in English 23 Nov 85 p 4

/Article: "EEC to Lend $5,3m to help Zimbabwe Wipe out Tsetse"/

/Text/ Zimbabwe yesterday signed a $5,3 million loan agreement with the European Economic Community for a 3-year tsetse fly eradication programme in the northeast.

The agreement was signed in Harare by the Minister of Finance, Economic Planning and Development, Dr Bernard Chidzero, and the vice-president of the EEC, Mr Lorenzo Natali.

Dr Chidzero said the loan would allow the tsetse control branch to tackle the serious tsetse problem that had developed in the northeast of the country over the past 6 years.

"In this region, due to a re-invasion of the fly from Mozambique, some 700,000 communal and small scale farmers and their dependants have been severely restricted in their agricultural production," he said.

The programme aims to eliminate tsetse up to the shores of Lake Kariba, which will act as a barrier against re-invasion. Over the last 4 years the branch has successfully cleared some 12,000 square km of the tsetse menace.

"If we are to achieve permanent relief from the ravages of tsetse flies then we must deal with the problem on a large scale and with long-term regional objectives, for disease and their vectors do not recognize international boundaries," Dr Chidzero said.

Dr. Chidzero said it was hoped that in the first 3 years of the project international donors would help wipe out the fly belt of 320,000 square km which affects Zimbabwe, Mozambique, Zambia and Malawi.

Mr Natali said the loan was part of the $28 million the EEC had set aside for a regional programme of eradication.

The major part of the funding would go into an assessment of tsetse fly distribution in the region and into research to develop adequate, environmentally acceptable eradication methods, possibly for a later regional eradication campaign.

## 900 Cattle Die in Three Months

Harare THE HERALD in English 23 Nov 85 p 4

/Text/ More than 900 cattle in the Chesa area of Mashonaland Central died in the first 3 months of this year from tsetse fly-borne disease, the regional glossinologist, Cde Vitalis Chadenga, has told THE HERALD.

He said this figure did not include cattle which had died in the communal areas of the province.

The Veterinary Services' tsetse control branch has stepped up its control programme.

Cde Chadenga said Veterinary Services had deployed 15 teams to cover an estimated 500 square kilometres in parts of Mashonaland Central.

"As it is raining, we can only try to locate areas which are affected. We cannot spray any insecticide," he said.

But infected cattle or those threatened by the pest were being inocculated. Aerial spraying would begin in May or June.

/12851
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## NEW VETERINARIAN SCHOOL WILL SERVE ENTIRE SADCC REGION

Harare THE HERALD in English 22 Nov 85 p 1

[Text] The new multi-million dollar faculty of veterinary science that will serve the country and the rest of the SADCC region was opened at the University of Zimbabwe by the Prime Minister, Cde Mugabe, yesterday.

The European Economic Community provided $14 million towards building the faculty, and a further $2 million for equipment was provided by Britain and Australia.

Cde Mugabe said Zimbabwe's cattle population was under continuous threat from trypanosomiasis in the great river valleys, while foot-and-mouth disease periodically played "havoc with marketing and export arrangements".

From 1987 the faculty would "be able to build up a profession within the country trained and equipped to meet the requirements in areas such as the communal lands which have been neglected for so long because of shortage of qualified personnel and other reasons".

Part of the contribution EEC originated from funds allocated for the region as a whole and, in return, Zimbabwe has undertaken to reserve 10 of its 30 places each year for students from SADCC countries.

Places are available equally to each member state and so far Botswana, Lesotho, Malawi, Swaziland and Zambia have put forward students.

Although the new building was opened yesterday, the faculty has been in existence since 1982 when the first 18 students were admitted to the five-year programme leading to a Bachelor of Veterinary Science degree.

The Prime Minister commended the UZ vice-chancellor, Professor Walter Kamba, for his efforts in establishing the faculty. "Without such a lead the project would have sunk in a welter of bureaucracy".

Speaking at the same occasion, Professor Kamba said the faculty had 63 students, 12 of whom would complete their studies next year.

"Staff recruitment and equipment procurement are progressing satisfactorily. Three departments have now been formally established and the faculty will therefore soon begin the process of staff development."

The faculty includes a large and small animal hospital, an out-patients clinic and research laboratories.

Professor Kamba said the faculty was of immediate service to the community in providing a clincial service for both large and small animals; providing a diagnostic service nationwide; acting as referral centre; providing a mobile service in and around Harare; and acting as a centre for high-quality research in veterinary medicine.

There are nine students from other SADCC countries now studying at the faculty.

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CSO: 5400/50

CHICKENS VACCINATED FOR NEWCASTLE DISEASE

Harare THE FINANCIAL GAZETTE (The Farming Gazette) in English 29 Nov 85 p 24

[Article: "200,000 Chickens Vaccinated, but Killer Disease Still Spreading"]

[Text] The Veterinary Department had by this week vaccinated nearly 200,000 chickens for Newcastle disease, which, however, continues to spread to other parts of the country despite road blocks and other measures.

The chief animal health inspector, Mr Johannes de Beer, told THE GAZETTE that his department was this week setting up new roadblocks in Domboshawa and in the Mutoko region. People had been bringing contaminated eggs from these regions for sale in Harare.

Roadblocks had already been set up at Glendale, Chinhamora, Bindura, Rushinga and Ruzawi.

Mr de Beer said that despite initial shortages, Newcastle vaccine was now readily available for sale at the Veterinary Department on Borrowdale Road.

Symptoms of the disease include diarrhoea and a sudden outbreak of deaths among chickens.

Speaking about the outbreak of quarter evil in cattle, Mr de Beer told THE GAZETTE that this was not serious and only a few sporadic outbreaks had been detected. "Normally, about two to three weeks after we have completed anthrax vaccinations, we get outbreaks of quarter evil."

In September, 106 cattle were vaccinated in Mutoko after a few cattle died of the disease.

There was another outbreak in Guruve in October, while eight cattle died in Marondera during the same month. In Chiweshe there were some deaths, suspected to be from quarter evil, although these had not been positively diagnosed.

/12851
CSO: 5400/52

## AMAN CROPS REPORTED WITHERING DUE TO PEST ATTACKS

Dhaka THE NEW NATION in English 26 Oct 85 p 2

[Text]

JAMALPUR, October 24: Aman crops on about one lakh acres of land in seven upazilas under Jamalpur district have been attacked by pests.

It is learnt that although farmers sprayed insecticide in the paddy fields several times, crops are withering away because of the ineffectiveness of the same.

Meanwhile, the price of insecticides has further risen to Tk 100 per kg in the rural markets of the district. As such most of the farmers find it out of their reach to go for purchase insecticide.

Meanwhile, Deputy Commissioner, Jamalpur, while on an official visit at Madarganj upazila, was apprised of the massive pest attack but he allegedly brushed it aside with the advice that the farmers should contact the upazila authority.

When contacted, the upazila authority came out with the excuse of fund constraints. On the other hand, the local BADC extension office let it be known that neither has there been pesticides nor sprayer in their stock.

However, Madarganj Chashe Samity and Melandah Farmers Samity have sent a telegraphic message followed by a memorandum to the president urging his intervention so that urgent steps are taken by the concerned department in this vital matter.

It is apprehended that if positive measures are not taken for arresting pests at the earliest, there may be an acute food deficit in the above mentioned upazilas.

### MYMENSINGH

Our Mymensingh Correspondent writes: Over Tk. 96 lakh have been disbursed among the farmers by Bangladesh Rural Development Board, Mymensingh Zone as agricultural loan for high yielding transplanted Aman cultivation through various Krishak Samabay Samity in the districts of Mymensingh, Kishoreganj and Netrokona.

It is learnt that a total of 5092 families received the above loan through 348 krishak samabya samities for high yielding Aman cultivation on 14,474 acres of land.

### RAVI CULTIVATION

Meanwhile, about 2.46 lakh acres of land have been brought under intensive Ravi cultivation programme in Mymensingh district during this season, reports BSS.

A District Agriculture Extension Department source said 1.65 lakh acres were brought under boro, 40,000 acres under wheat, 10,000 acres under potato, 20,000 acres under mustard and 11,000 acres under vegetable cultivation in the district.

/9274
CSO: 5450/0069

BARBADOS

## BRIEFS

ONION BLAST DISEASE--Barbados' onion crop has been hit by an outbreak of blast disease. A statement from the Ministry of Agriculture and Natural Resources yesterday, revealed that farmers all over the island had complained their crops were affected by the disease brought on by the recent heavy rains. The statement read: "The disease appears to be that which Barbadian farmers refer to as the blast syndrome. Symptoms of this disease include numerous small chlorolic spots that appear on the windward side of the leaves. These spots may get larger, forming water soaked spots which may split to form several openings in the leaves. "The leaves will collapse, wither and die. This condition can lead to the development of other symptoms caused by fungal disorders," it stated. The ministry therefore has advised all farmers they should treat their fields with fungicidal sprays every three to four days: with Kocide 606 at two tablespoons to a gallon; Manzate 200 at one tablespoon a gallon; and Bravo 500 at two tablespoons a gallon. Farmers have also been advised that in addition to the sprays, two bags per acre of NPK 22-0-22 or two bags of sulphate of ammonia and half-bag of muriate of potash per acre must be added leached most of the potassium and nitrogen from the soil. Further information can be obtained from the Plant Pathology Unit and extension officers of the Ministry of Agriculture and Natural Resources. [Text] [Bridgetown WEEKEND NATION in English 1-2 Nov 85 p 17] /12851

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PEOPLE'S REPUBLIC OF CHINA

## BRIEFS

GUANGDONG PINES THREATENED--Pine trees in Guangdong are being "bugged"--by insects which find their way from Macau. The uncommon specie of tree pest is threatening woodlands in the southern province affecting pines with an area of about 2.6 million mu (173,420 hectares). Trees have to be chopped down as measures to contain the pest have not been found yet. The director of the Forestry and Policy Administration Department of China's Ministry of Forestry, Mr Li Guiling, said yesterday the insect was a very uncommon specie which killed off pines by attacking the needles. The emergence of the specie in Macau highlighted the importance of preserving a balanced natural environment, said the director. China was concerned about conserving its forests, which were still receding despite large-scale afforestation efforts. He said the problem of acid rain, which killed trees over large areas in Europe and North America, had been recognised in China. Mr Li said China was monitoring the problem which was not yet considered serious as most of the country's industrial centres were far from forests. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 9 Nov 85 p 8] /9274

CSO: 5450/0065

JOBS TO START FIGHT AGAINST KAROO LOCUSTS

Johannesburg THE CITIZEN in English 10 Dec 85 p 15

[Article by Brian Stuart: R7-m for Jobs to Start Fight Against Karoo Locusts"]

[Text] The Government has made an additional R7-million available for special job creation in the agricultural sector.

Earlier this year, R2,3-million was allocated. This has given employment to 5,000 people, many of whom are the sole breadwinners of their families.

The R7-million extra for the present financial year will enable the existing programme to be widely extended, using unemployed to fight a locust outbreak in the Karoo, plant drought-resistant forage, clean irrigation canals and repair farm roads.

Mr Greyling Wentzel, Minister of Agricultural Economics and Marketing, and Mr Sarel Hayward, Minister of Agriculture and Water Supply (House of Assembly), said in a joint statement that R2-million of the new allocation had been earmarked for employment in combating locusts.

There had been a serious outbreak of locusts in the Karoo and adjoining grassland areas. Natural grazing and crops could be severely damaged if the locusts were not brought under control "rapidly and effectively."

The Ministers said the organised agriculture would co-operate in the new employment projects.

Applications

Individual farmers or groups of farmers could apply through their local farmers' union to use the unemployed. The applications would be cleared by local extension officers of the Department of Agriculture and Water Supply.

Development boards would play a role in identifying and recruiting unemployed for the special job opportunities.

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CSO: 5400/52

END